

Shop the online store
TheNationalLocksmith.com
• CLICK HERE •

The National Locksmith®

TheNationalLocksmith.com

August 2000
Volume 71
No. 8
\$5.00

CODES!
BMW, BH010009-BH241009
page 126

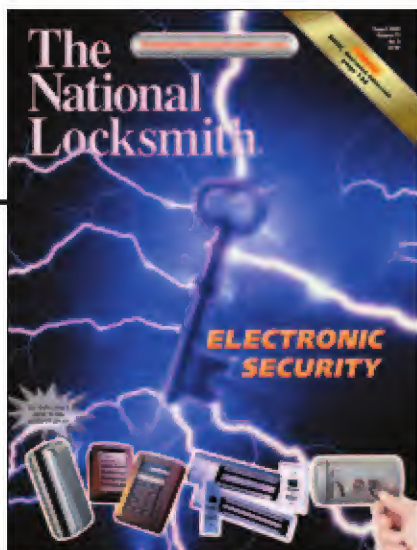
ELECTRONIC SECURITY

ISC EXPO EAST
NEW YORK
AUGUST 29-31



Click here to browse new issue

On The Cover...



The world of electronic security is rapidly evolving and expanding. Today companies like Visonic, Videx, Rutherford and Dorma are offering even greater electronic security capabilities.

Publisher Marc Goldberg

Editor Greg Mango

Art Director Jim Darow

Production Director Edgar Shindelar

Technical Editor Jake Jakubowski

Senior Writers

Sal Dulcamaro CML, Michael Hyde, Dale Libby CMS, Dave McOmie, Sara Probasco

Contributing Writers John Blankenship, Tony Blass, Joe & Dee Bucha, Carl Cloud, Ron & Chris Curry, Richard Allen Dickey, Steve Gebbia, CML, Giles Kalvelage, Jim Langston, Tom Lynch, Tom Mazzone, Don Shiles, Robert Sieveking

Director of Sales & Marketing

Jeffrey Adair

Advertising Account Manager

Debbie Schertzing

Circulation Manager Tom Dean

Accounting Manager Sheila Campo

Production Assistants Kim Fryer
Dave Krofel

Administrative Assistants Sean Selby
Jeffrey Thompson

Shipping Manager Daniel H. Miller

National Publishing Co.

The National Locksmith® ISSN #0364-3719 is published monthly by the National Publishing Co., 1533 Burgundy Parkway, Streamwood, Illinois 60107-1861. Periodicals postage paid at Bartlett, Illinois 60107 and additional mailing offices USPS 040110. Subscriptions \$41.00 per year in the USA; \$54.00 per year in Canada; \$67.00 in all other countries. Single copies \$5.00 each. Postmaster, please send change of address to National Publishing Co., 1533 Burgundy Parkway, Streamwood, Illinois 60107-1861. ©2000 by the National Publishing Company. All rights reserved. Printed in the U.S.A.



The
Audit
Bureau
Member



Questions or problems with your subscription? Call (773) 348-6358

For all other inquiries,
call (630) 837-2044, fax: (630) 837-1210,
or E-Mail: natlock@aol.com
See us on the World-Wide Web:
www.TheNationalLocksmith.com

CONTENTS

The National Locksmith August 2000 • Vol. 71, No. 8

FEATURES

COVER FEATURE! 16

TouchAccess™ from Videx®

A surface mounted electronically controlled lock.

28

The 1999 Mitsubishi Diamonte

The Diamonte does not have a transponder like it's cousins in Europe.

44

W-LOK

Totally stainless steel padlocks.

54

Quick Entry Update

Opening the 2000 Dodge Neon.

56

ISC East Booth Listings

58

ISC Product Showcase

Just some of the products on display at this year's show.

64

Literature, Brochures, Web Pages & CD's

Free manufacturer offerings.

70

Tubular Locks, Part 3

Generating a tubular key to dimension.

86

Cover That Change Key Hole

The pitfalls of combination changing.

100

New Kawasaki Key Blank

A new blank is OEM available only.

116

Successful Networking

A vital ingredient.

CODES 126

BMW, Part 2

BH010009-BH241009.

134

Lorex CCTV And You

A bundled package for easy installation.

140

Chrysler PT Cruiser

Opening this new concept car.

144

Meilink Fire Safe

A quick opening of a handle disconnect.

151

TheNationalLocksmith.com

Visit us online for technical forums, chat, online store plus visit our sponsors.

DEPARTMENTS

5 COMMENTARY

6 MANGO'S MESSAGE

10 LETTERS

12 SECURITY CAFÉ

78 BEGINNER'S CORNER

82 THE LIGHTER SIDE

96 BUSINESS BRIEFS

97 THE CASH STATION

106 TECHNITIPS

152 TEST DRIVE

COMMENTARY



Transponders: The Unclever Key!

A clever key” is what BMW calls it. And with its rolling code transponder it truly is clever. Each time the driver inserts the key into the ignition, the transponder and computer communicate, changing the code for next time. Moreover, each key can be programmed for different driver’s preferences.

Wouldn’t it be nice if you put your car key in the ignition, and instantly the car adjusts the driver’s seat back to your comfort settings? And puts the temperature controls back to where you want them? The clever BMW key does just that, plus a few other neat tricks.

The car comes with several of these clever transponder keys and the owner can acquire and have programmed up to a total of 10 keys. After 10 keys have been programmed, the entire transponder computer on the car must be replaced. Undoubtedly that replacement will cost a lot of money. But hey, driving a BMW isn’t for everybody, and it’s fair to expect people to pay a price for luxury and security.

What is curious to me, though, about this transponder program from BMW is how such clever people, using such clever technology, could have been so decidedly uncles when considering the issue of lost keys. Now, to be fair, I am just using BMW as an example for the various auto makers whose transponder keys are not locksmith programmable.

The fact is that without a programmed key, only the dealer can generate a first key for the car. The locksmith cannot because we have no access to the technical tester which must be used. Ford transponders, for example, can be programmed with the NGS tester which is available to the locksmith. Thus, I would much rather find myself owning a Ford with lost keys over a BMW.

I have no doubt that BMW offers fine customer service. But clearly a great inconvenience is

coming for customers who lose their keys and cannot call a locksmith to help them. When I asked one BMW salesman what happens if I lose my clever key, how would I get back on the road, he said, “Hmm, if you lose a key... that’s a valid point. I never ran into that before. Let me check on it and call you back.”

Eric, the salesman, called me back promptly and informed me that all cars come with roadside service, and that even if I was in the middle of a cornfield in Iowa, they would come tow me to the nearest dealer. Then they would make me a key.

The fact is that the car makers who don’t help locksmiths program their keys just don’t understand the inconvenience and expense they will be costing their customers. They are under competitive pressure to offer high security from both other manufacturers and the insurance industry. When the customer begins to complain loudly enough, maybe we’ll be able to get our hands on the tester so we can help put a stranded BMW driver back on the road.

In the meantime, check out other profitable opportunities such as CCTV: easy to install and profitable too.

Marc Goldberg



**Have questions? Want free technical help?
Free Locksmith Forums!**

www.TheNationalLocksmith.com

Marc Goldberg
Publisher

August 2000 • 5

Mango's Message

When was the last time someone came around, patted you on the back and said, "Thank-you for doing such a great job?" I'd be willing to bet that few of you can remember.

When was the last time you did the best you could and someone came around, patted you on the back to get your attention, and then griped at you? I'd be willing to bet that most of you can remember when. The medical term for this disposition is "Chronic grievance syndrome" and it plagues far too many people.

For some reason, we immortal humans have a propensity to ridicule, and a reluctance to praise. I'm not telling you anything you don't already know. We are all aware of this unflattering disposition that seems to permeate far too many, yet we find it hard to change.

We have all found ourselves in situations that no matter how hard we tried, it was never good enough. It can be a very demoralizing experience. It does little for the self-esteem.

To meet an individual that manages to focus more on the positive aspects of life rather than the negative is not only refreshing, but also inspiring. Recently, Gordon Sinclair, a Canadian television commentator gave an uplifting editorial broadcast from Toronto. What follows is the full text of his trenchant remarks as printed in the Congressional Record :

A Tribute to the United States

America: The Good Neighbor

"This Canadian thinks it is time to speak up for the Americans as the most generous and possibly the least appreciated people on all the earth. Germany, Japan and, to a lesser extent, Britain and Italy, were lifted out of the debris of war by the Americans who poured in billions of dollars and forgave other billions in debts. None of these countries is today paying even the interest on its remaining debts to the United States.

When France was in danger of collapsing in 1956, it was the Americans who propped it up, and their reward was to be insulted and swindled on the streets of Paris. I was there. I saw it.

When earthquakes hit distant cities, it is the United States that hurries in to help. This spring, 59 American communities were flattened by tornadoes. Nobody helped.

The Marshall Plan and the Truman Policy pumped billions of dollars into discouraged countries. Now newspapers in those countries are writing about the decadent, warmongering Americans.

Complain, Complain, Complain.

I'd like to see just one of those countries that is gloating over the erosion of the United States dollar build its own airplane. Does any other country in the world have a plane to equal the Boeing Jumbo Jet, the Lockheed Tri-Star, or the Douglas DC10? If so, why don't they fly them? Why do all the International lines, except Russia, fly American Planes?

Why does no other land on earth even consider putting a man or woman on the moon? You talk about Japanese technocracy, and you get automobiles.

You talk about American technocracy, and you find men on the moon — not once, but several times — and safely home again.

You talk about scandals, and the Americans put theirs right in the store window for everybody to look at. Even their draft-dodgers are not pursued and hounded. They are here on our streets, and most of them, unless they are breaking Canadian laws, are getting American dollars from ma and pa at home to spend here.

When the railways of France, Germany and India were breaking down through age, it was the Americans who rebuilt them. When the Pennsylvania Railroad and the New York Central went broke, nobody loaned them an old caboosse. Both are still broke.



**Greg Mango
Editor**





I can name you 5000 times when the Americans raced to the help of other people in trouble. Can you name me even one time when someone else raced to the Americans in trouble? I don't think there was outside help even during the San Francisco earthquake.

Our neighbors have faced it alone, and I'm one Canadian who is damned tired of hearing them get kicked around. They will come out of this thing with their flag high. And when they do, they are entitled to thumb their nose at the lands that are gloating over their present troubles. I hope Canada is not one of those."

Stand proud, America!

That testament of appreciation for this country and its achievements has to make you as an American, feel good. I know it did me. A dose of praise once-in-a-while can have a tremendous impact on the human psyche. It can turn someone who wouldn't or couldn't, into someone who will and does. The glean of appreciation is a tremendous motivator, and one that should not be overlooked.

I am often reminded of my own shortcomings in the appreciation category. Kim Fryer, our production assistant, will (in her tongue-in-cheek way) frequently remind me that the only time I cross the threshold of her office is to complain about something that needs to be corrected. In the everyday hustle of business and life, it's easy to overlook the good things, concentrating instead on what's not. You see, I am just as guilty of this malady.

In an attempt to change within myself what I find so unflattering in others, I am taking this opportunity to tell the staff at *The National Locksmith*: Marc Goldberg, Publisher; Jeff Adair, Director of Sales & Marketing; Debbie Schertzing, Advertising Account Manager; Sheila Campo, Accounting Manager; Jim Darow, Art Director; Ed Shindelar, Production Director; Dave Krofel, Production Assistant; Tom Dean, Circulation Manager; Sean Selby Administrative Assistant; Jeffrey Thompson, Administrative Assistant and Daniel Miller, Shipping Manager, that your hard work and diligence does not go unnoticed. O.K., maybe by some people whose names I won't mention it does, but that's only because I was out of town... I mean they're so busy!

In all seriousness, I am truly inspired by this staff's ability to create the mega-monster that *The National Locksmith* is, especially given the ~~lack~~ amount of talent around here.



Of equal importance is the staff of writers: Dale Libby, Sara Probasco, Dave McOmie, Michael Hyde, Jake Jakubowski, Sal Dulcamaro, Carl Cloud, Bob Sieveking, Jim Langston, Tom Lynch, Tony Blass, Richard Dickey, John Blankenship, Giles Kalvelage, Tom Mazzone, Don Shiles, Ron & Chris Curry, Steve Gebbia, Randy Mize, Steve Young, Don Dennis, Billy Edwards, Mark Gerhardt, Joe & Dee Bucha, Mike Griffin, Ray Hearn, Ted Tate, Nelson Rivera and Tony Vigil, to mention just a few that have contributed over the years. They have unselfishly devoted countless hours of writing, interviewing and photograph taking to share knowledge, information and their experience with you. Without them none of this would be possible. I can't thank them enough for their dedication, contributions and consistency of excellence. I can honestly say without hesitation that this publication currently enjoys, and is fortunate to have, the most talented, diverse, hardest working staff of writers ever assembled in the 71-year history of this publication. It's never been better. Their ability to make deadlines month after month, year after year, is truly remarkable. O.K., so I lied. Few ever make the deadlines, the rest (and you know who you are) need me to crack the whip a little. Somehow, we still manage to get it done.

Finally I'd like to give special recognition to Mrs. Kim Fryer, who travels 50 miles each way just to be of service to her Master, Mentor, Creative Genius, co-workers, and who always reminds me when I fall short, making my life a living H _ _ . No, no, let me rephrase that, there's got to be something good I can say about her! Hold on, just give me a minute to think...it's coming, it's coming... Look, I said I was going to attempt to change within myself what I find so unflattering in others. I didn't say I was going to be perfect!

I encourage you to follow Gordon Sinclair's example and take a moment to extend appreciation to your employees, co-workers, employer, associates or assistants. I think you will find it a rather uplifting experience not just for the recipient, but yourself as well.

As a closing note to *The National Locksmith* staff and writers, what I'd really like to know is: "Who was the Bozo that rotated the photo on page 67? And what ever made you think that chartreuse and purple made a good color combination? Does anyone spell check these articles? Does the word "Deadline" mean anything? Who didn't make coffee this morning? Where are the donuts? How many times do I have to tell you? Kim, where's Kim...?" **TNL**



August 2000

Letters

The National Locksmith is interested in your view. We do reserve the right to edit for clarity and length.

A Great Tool

First I'd like to thank The National Locksmith for the HPC Air Wedge prize that I won recently for a Technitip article I had written. It has really come in handy. For example when I couldn't get a key code and the customers anxiety level was 9 on a scale of 1-10. That's when I pulled out the Air Wedge, a piece of cardboard and a three-n-one wedge tool out and proceeded to unlock the car. You should have seen their eyebrows jump when it opened. I have used this tool for other lockouts and so far it is working great. Thanks again.

Willie Bowen
Virginia

There are Greater Fears

I read Mango's Message in the June issue of *The National Locksmith* about safe deposit key duplication in Tennessee. That the locksmiths in Tennessee cannot duplicate a key is the least of the problems in this industry. As you are aware, the new transponder technology that is dealer only serviceable such as Honda, Mazda and the new Fords requiring a new dealer only NGS which at the

present time is not available to our industry, is of greater concern.

The associations should be talking to congress to pass a law that the cars be serviceable on site when a key is lost. Is the country going to wait until someone is murdered because they could not have a key made for their car by a locksmith on site, and while waiting for a tow, they were killed by a criminal just because they were in the wrong place at the wrong time? Our associations should be lobbying congress. The associations should also be letting the public know of what a locksmith does. I don't know how many times I go to a house to rekey and the people say, "I didn't know that locks could be changed, I thought I had to buy new locks." It is mostly the younger people, they have no idea what a locksmith does, and our industry does nothing to inform them.

We just test ourselves with the PRP, and nobody outside the industry has any idea what that is. The magazines should take the lead in this matter. It is important for our industry to let people know what services we provide.

Bruce Paget
Texas

Publishers Note: We agree with you that transponders can represent a serious inconvenience to the consumer, particularly those which are not easily locksmith serviceable in the field. However, do be aware that the NGS programmer for Ford certainly is available in our industry. It can be purchased from several sources supplying the locksmith. Finally, while we don't like the current limitations of transponders either, the transponder craze has been driven by the insurance industry and by competition among the auto makers. The only way manufacturers will trouble to think about locksmiths is when consumers begin mass protests when they are stranded and cannot get a key made. We believe that as



transponders increase, so too will customer complaints until the car makers have to factor the locksmith in. Marc Goldberg

Contact a Family Member

I have run into the situation where people imagine things. What I normally do is try to contact another member of the person's family. I'm in a small town so that is possible. I had a lady a few years ago whose family did not want anything to do with her. Every time she called me, I would go by her house and get her to give me all of her present house keys so that I could destroy them for her so other people wouldn't get them. I would then duplicate one of them on a new key blank and give it to her, and tell her that her brother paid for them.

I, of course, let her brother know what I was doing, even though he didn't want to help her. It cost me a few minutes and a couple of key blanks, but it was worth it. Hope this helps you.

P.S. She was rich and you should have seen the vultures that showed up at the will reading.

Carl Findley
E-mail

The National Locksmith
1533 Burgundy Parkway
Streamwood, IL 60107
Attn: Editor

Security Café

**DROP IN FOR
TOOLS, TECHNOLOGY
& EQUIPMENT**

Adrian Steel Steeler Line Ladder Rack



Adrian Steel Company has an addition to the Steeler line of pickup ladder racks. The new Load Runner pickup rack features an aerodynamic tubular steel construction that is both stylish and functional. Designed to fit all full-size pickups, the Load Runner provides 750 pounds of carrying capacity while complimenting newer pickup truck styles. The knock down design of the new Load Runner pickup rack makes for easy shipping and assembly. Load Runner models for 6.5' or 8' pickup bed lengths in regular cab or extended cab-over styles are available. Racks receive a glossy black Steel-Cote powder coat paint with a G-60 galvanized undercoat for weather resistance.

ASSA Pinning Kit

ASSA's new master pinning kit includes all of the pins, springs, caps and miscellaneous items to satisfy most cylinder servicing needs. Rim, mortise, cam, utility, I/C and tube cylinders can be rekeyed from the kit, as can the Models 600, 6000, 7000 and V-10. While the new kit encompasses all of the pinning requirements of all ASSA cylinders, the company is maintaining its

PK-1 and PK-IC kits to satisfy individual requirements.

Marks USA Key In Lever Locksets



The ANSI Grade 1 and 2 Survivor Series key in lever cylindrical locksets is available in two distinctive lever designs. The "American" design with an angular return and the "Crescent" with a smooth rounded lever; both returning to within 1/2" of the door surface. Both designs feature the "Clutch" mechanism, which prevents forced entry and damage to the lock by disengaging the lever from the lock before damage can occur. Marks locksets feature lifetime mechanical warranty. All Survivor locksets are UL Listed for 3-hour fire rating,

and satisfy all ADA requirements.

ESP Electric Lock Pick



ESP's Electric Lock Pick is made from aircraft aluminum and hard steel construction and has a 3-volt electrical system powered by two conventional alkaline or nicad "C" cell batteries. The pick includes four picking needles, three tension tools and two adjustment wrenches.

Indiana Cash Drawer Drop Drawer

Indiana Cash Drawer's

Drop Drawer offers close to 100 cubic inches of secure, lockable large bill and check storage. This separate media area is keyed differently from the main cash drawer allowing manager only access while providing additional cashier security. The Drop Drawer has a 2 - year warranty and a 2 million cycle test rating. Overall dimensions of the Drop Drawer are 21" deep x 20" wide x 4.125" high. It is available in all standard colors or painted to your specifications.

Von Duprin Guard-X

A new code-compliant exit alarm lock from Von Duprin provides secure, alarmed protection for secondary exits, perimeter doors, back doors and other emergency exits. The Guard-X device readily identifies the door on

AMSEC's New Gun Safes

American Security Products Cascade Series is a new line of gun safes for AMSEC. Some of the improvements are: a massive 1" door constructed of 1/8" inner and outer steel plates filled with fire insulating material, the back panel of the door is also lined with insulating material for dual fire protection, 4 active one-inch diameter chrome-plated steel locking bolts, 4-way boltwork, auto locking bolt detent system that holds the bolt in the open position and auto locks bolts when the door shuts, polished chrome/brass tri-spoke handle on high gloss models along with a new heavy duty L-handle on textured models, 4 precut anchor holes, and two new paint finishes.





CIRCLE NUMBER
273

which it is mounted as an emergency exit and secures the opening against unauthorized use. After an unauthorized exit, it does not allow relatching or resetting the alarm, except by an authorized person with a key. The lock provides secure protection, with a large stainless steel deadbolt that engages over 1.25 square inches into the strike. A cast aluminum latch case guards the exit alarm and resists attack from inside the door.

Master Lock's Single Key System Padlocks



CIRCLE NUMBER
274

With Door Key Compatible Pro Series padlocks, the same key that opens your facility's door locks can also open your high security padlocks. Master Lock's Door Key Compatible padlocks are compatible with the 26 most popular commercial door keyways including those from Schlage, Kwikset, Weiser, Arrow and Yale. Each style of padlock available can be matched to the needs of the specific security environment. Master Lock supplies the case

model padlocks and cylinders in response to the end user's desired keying options. The padlocks are received complete and ready to be operated by the door key already used.

PRO-LOK Mortise Jig

CIRCLE NUMBER
275



PRO-LOK has introduced a new jig that easily and quickly allows you to mortise a pocket for mortise locks. This new jig comes complete with special bits from Europe. These bits allow you to mortise the pockets on wood doors in less than 5 minutes. Optional aluminum cutters are available as well. The handy carrying case will protect this special jig that allows you to adjust the size of your mortise holes easily.

Stanley Hardware Detention Stops

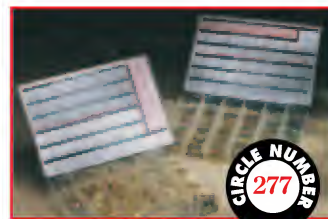
Stanley Hardware has added of two new security door stops to their product line for detention and/or correctional facilities. The



CIRCLE NUMBER
276

new stops - Model 3001, a vertical style floor stop, and Model 3002, a horizontal style wall stop - are both made of fire resistant, black neoprene rubber for long wear, heavy use and for resistance to abuse. The Model 3001 floor stop measures 2 inches in diameter and 1-1/2 inches in height from floor surface to crown. It includes a molded steel anchor post 5/8 inch by 11 inches in length. The Model 3002 wall bumper is of a convex design and measures 2-5/8 inches in diameter with 1-1/4 inch projection from the wall surface.

Strattec Strat-A-Various Pinning Kit



CIRCLE NUMBER
277

Strattec Security Corporation has released the Strat-A-Various - part number 705940 - universal pinning kit. Strat-A-Various contains all of the tumblers, springs, and spring retainers necessary to assemble Chrysler, Ford, General Motors and Mitsubishi lock service packages on many vehicles for which Strattec is the original equipment supplier. The kit provides components for the following lock sets: Chrysler double sided, Ford 8-cut, General Motors single and double sided and Mitsubishi. By providing all of these parts in one kit, Strat-A-Various makes finding necessary parts easier and more convenient than ever before. **TNL**

The Ultimate Technitips Collection



Here's one of the most useful books ever available to the locksmith!

CLICK HERE TO LEARN MORE

#TIPS - 2

COVER
STORY!

Videx® is a name that may be relatively new to the locksmith industry, but it has been around since 1985 in the data collection business.

You know those probes, wands and lasers used to read UPC codes in the checkout lane at your favorite department store? Well, Videx manufactures just such products.

Videx stepped into the lock industry with their TouchAccess™ electronic lock in 1999. The TouchAccess™ combines an electronically controlled lock that uses the popular Dallas chip along with simple computer software to allow easy access by users as well as very simple audit retrieval.

To start with, this lock may remind you of a conventional night latch. (See *photograph 1.*) It is surface mounted and the locking bolt is retracted by turning a knob. (See *photograph 2.*) This is where the similarity stops. Rather than a flat bolt, the TouchAccess uses a circular latch bolt (see *photograph 3*) that extends from the lock body, into the strike plate (see *photograph 4*) around a metal retainer and back into the lock body. Because of the metal retainer in the strike plate, the lock body and strike plate can not be forced apart until the lock is opened.



TOUCHACCESS™
from
Videx®



by
Richard
Allen
Dickey

16 • Visit www.TheNationalLocksmith.com



1. The TouchAccess™ from Videx®.

The mounting plate for the lock can be seen in *photograph 5*. It is shipped with a paper cover that is intended to prevent the lock body and mounting plate from locking together. Removing the paper reveals the spring catch that locks the body to the mounting plate. (See *photograph 6.*) Yes, there is a way to release the catch, but the lock must be unlocked before you can reach it. I will show you how it works a little later.

Photograph 7, shows the under side of the lock body with the mounting plate removed. Everything is nice and compact in design, including the location for the 9-volt battery.

In *photograph 8*, you get a closer look at the tiny motor actuator and the flat springs that hold things in place.

Photograph 9, shows the actuator open while *photograph 10*, shows the actuator in the locked position.

If you are thinking that there should be a little more to this lock, you're right, there is. Just take a look at *photograph 11*, and you will see a connector that is used to connect the top circuit board to the bottom circuit board. I just love to take things apart, so after removing six screws, I was able to look at the hidden circuit board. (See *photograph 12.*)



2. Turning a knob retracts the locking bolt.



3. The circular latch bolt.

This is the circuit board that has all of the important stuff. All of the sounds made by the lock, access list information and audit information is stored on this circuit board. If you dig this deep, be careful. Aside from the possibility of ESD (electrostatic discharge) damage, there are a few parts that might try to run away. Either way it could spell trouble.

If you are still wondering what in the world a Dallas chip is, look at *photograph 13*. The silver button is the Dallas chip and the black part is just a plastic handle. It is about the size of a nickel and weighs almost nothing. The Dallas chip has an electronic serial number inside as well as on the face of the chip that is unique to each and every chip. This number is how the lock knows who you are.

LOCK INSTALLATION:

This lock is very simple to install. You simply remove the strike plate cover from the strike plate and attach the strike plate using the screws provided. (See *photograph 14*.) Next attach the lock mounting plate using the remaining six screws. (See *photograph 15*.) The gap between the mounting plate and strike plate should be .040 to .135 or 1 to 3.5 mm. Which ever you prefer. You can replace the strike plate cover at this time.

The next step is to slide the lock body into place. When it is fully seated on the mounting plate the retaining spring will snap into place preventing removal of the lock body.

The lock is opened by first touching the Dallas chip to the center of the lock. (See *photograph 16*.) If the Dallas chip is



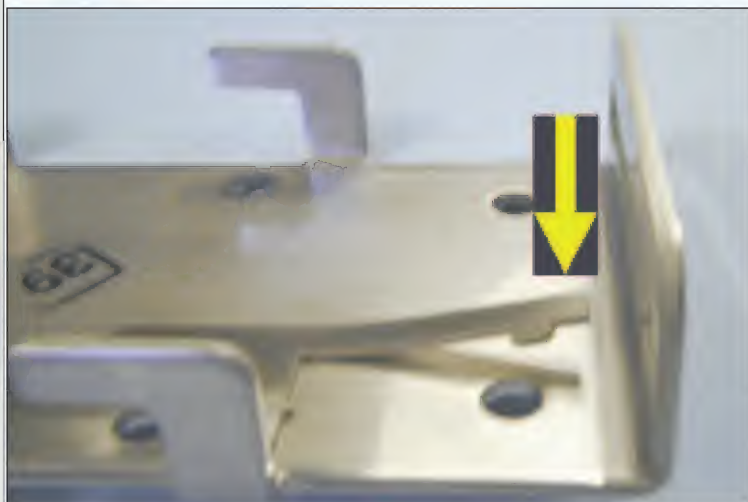
4. The strike plate.



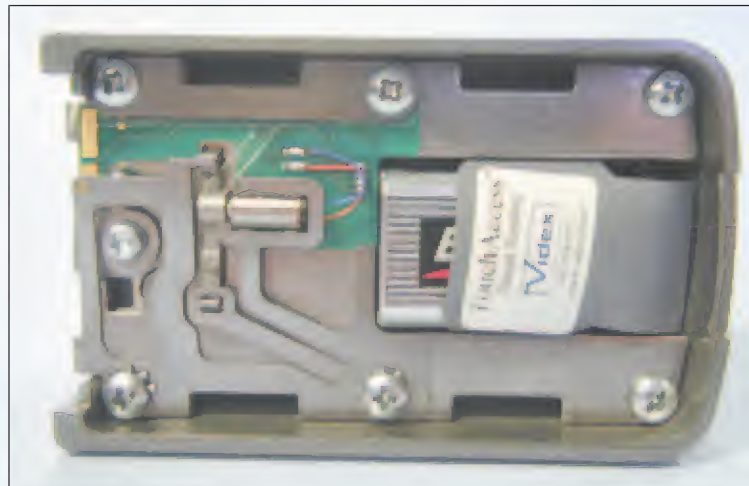
5. The lock mounting plate.

read successfully you will hear three beeps. Since no other keys have been programmed, the key that came with the lock is considered the master. We will get into programming just a little later.

To remove the lock body from the mounting plate, you first have to touch the Dallas chip to the lock and turn the knob as if to unlock the lock. *Photograph 17*, shows the position the knob should be in to see the access hole that allows you to reach the retaining spring. Insert a large paper clip or a small Allen wrench (provided with the lock) into the



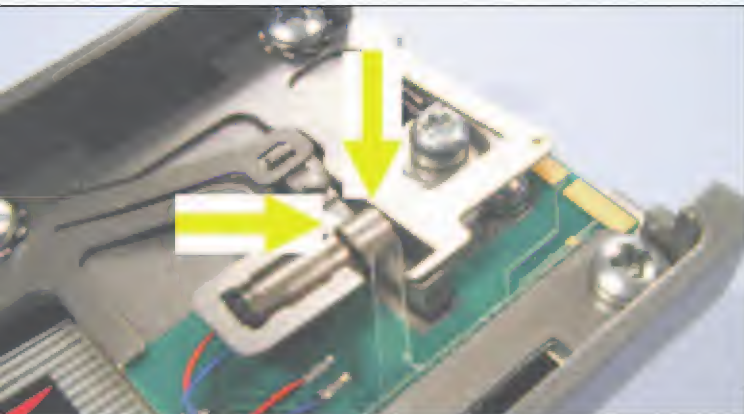
6. The spring catch on lock mounting plate.



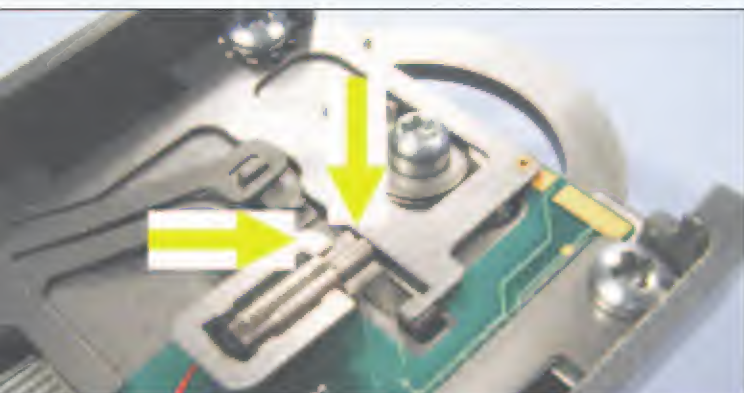
7. Bottom view of lock.



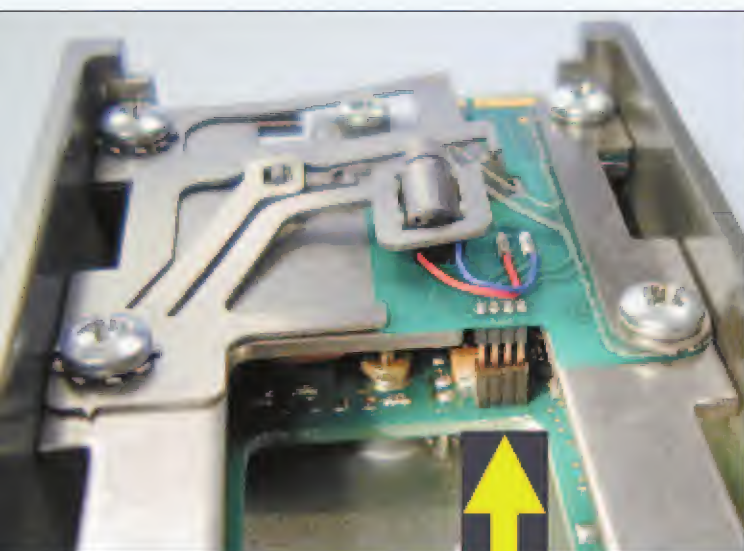
8. View of actuator and spring plate.



9. Actuator in open position.



10. Actuator in locked position.



11. The upper to lower board connector.

hole. You will be able to push on the retaining spring and remove the lock body. (See photograph 18.) This covers the basic lock installation. Now let's talk programming.

PROGRAMMING PROCEDURES:

The TouchAccess can be used right out of the box. The first TouchKey that contacts the center of the lock will be the master key. The master key is used to add or delete other TouchKeys if you decide to add others. The system will work with just one key but you do miss out on a lot of the lock's potential.

To add another key, you touch the master to the center of the lock. The red light will come on for about 20 seconds. Any TouchKey that touches the center of the lock will be added to the access list stored inside the lock. The reverse process is used to remove a key from the access list. The key that is to be removed has to touch the lock first. Next, the master has to touch the lock within 20 seconds. A low beep confirms that the key has been removed from the system.

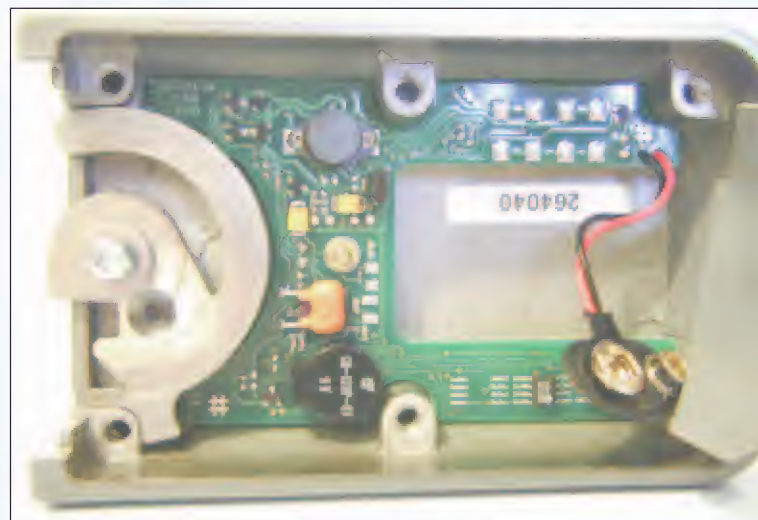
When the lock battery runs low, it will tell you. The lock will beep every 10 seconds and the battery should be replaced within a week. If you are quick, you can replace the battery without losing any of the access information stored inside. How fast you ask? The task must be completed within 30 seconds. If you think about it, a battery can be disconnected and a new one reconnected within about 5 seconds, so you do have plenty of time.

If the master key is lost and you just don't know what to do, the lock can be reset to the factory default. The process is to disconnect and then reconnect the battery while shorting the edge and center of the key reader pad. Any conductive material, like a coin or wire, can be used to short the edge of the reader to the center of the reader.

Everything we have done so far has been done without the aid of computer software. We have installed the lock and we can use the lock as well as add and remove keys. If you only have one lock and could care less about an audit trail, you might not need the software. However, with the software, I will show you some of the nice to have capabilities offered by Videx.

SOFTWARE PACKAGE:

The AuditLink 200 software package is designed to work with TouchAccess locks by transferring information from



12. The lower board exposed.



13. The Dallas chip.



14. The strike mounting plate.

the computer to the lock and back to the computer. (See *photograph 19.*) This is done without the use of cables or wires. It is done with a handheld Palm III or a Palm V organizer. (See *photograph 20.*)

I am going to cover the Palm very briefly before getting into the AuditLink 200 software simply because the AuditLink software is designed to work with the Palm organizer. If you are not familiar with the Palm organizers from 3Com®, it is a small hand held computer that is capable of retrieving and displaying data from your computer or many other device that use an infrared connection.

Photograph 21, shows the physical connection between the Palm organizer and your computer. The idea is that you slide the Palm into the cradle that connects to the computer and push a button to transfer any new data from the palm to the computer. Any updated data that is located on the computer is transferred to the Palm at the same time. We just covered the basic operation of the Palm organizer. It is capable of doing a lot more for you, but for our purposes, this is enough.

The AuditLink 200 software, like any other software, has to be installed on a computer before it can be used. However, before you can install the AuditLink 200 software, the software for the Palm must be installed. This just

happens to be step 1 in the AuditLink installation instructions.

Step 2, is to make sure that the Palm has been synchronized with your computer at least one time before you continue. This process is called a HotSync.

Step 3, is to install the AuditLink 200 software on your computer.

Step 4, is to re-synchronize (perform another hotsync) the Palm with the computer. This will copy some of the AuditLink software components to the Palm. When this is done, you are ready to start setting up the TouchAccess lock.

There are several steps involved with setting up the lock to allow retrieval of an audit trail, but they are very simple steps.

1. Open the AuditLink software on the Palm. A screen will be displayed like the one in *Photograph 22.*



15. The lock mounting plate.



16. The Dallas chip makes contact with reader in center of lock.



17. The access hole to allow cover removal.



18. Tool inserted in hole and lock partially removed.



19. Software manual with CD-ROM.

2. Tap the lock button. The very first time you start this screen a message will tell you that no locks have been entered yet. Just tap "OK" and continue to the next step.

3. Touch the master key to the lock. A red light will come on and the lock will beep three times.

4. Hold the infrared port on the Palm (see photograph 23) three to five inches from the red light on the lock. If the lock and Palm are aligned properly, the palm will beep while it reads information from the lock. This step will transfer the lock serial number to the Palm. The lock serial number is important when you retrieve audit trails from more than one lock. With a serial number there is no way to mix up the information.

The next couple of steps are a process referred to as a "T Sync". This is used to retrieve data from the lock as well as set the clock that is inside the lock.

1. From the AuditLink main screen on your Palm, tap the "T Sync" button.

2. Touch the master key to the lock. The red light will come on like before.

3. Hold the infrared port on the Palm (see photograph 23) three to five inches from the red light on the lock.

4. The locks time will be updated and all audit information inside the lock will be sent to the Palm. When this process is complete, the Palm will sound three times.

The next thing we want to do is transfer the data from the Palm to your computer. Simply place the Palm in its cradle and press the HotSync button at the base of the cradle. This will send all data from the Palm to the computer.

We are almost done, but there are still a few more things to do.

1. Start the AuditLink software on your computer. (See photograph 24.)

2. Go to the locks screen just to make sure that your lock serial number did make it from the lock to your computer. (See photograph 25.) If you added a name for the lock from within the Palm, you should also see it now. This screen is also where you would change the mode of the lock. When finished, click "OK" to go back to the main menu.

3. Click "Groups" to create a group. (See photograph 26.) Assign the new group a name and set the desired access time slots. This is also where you assign which locks are



20. A 3Com® Palm III.

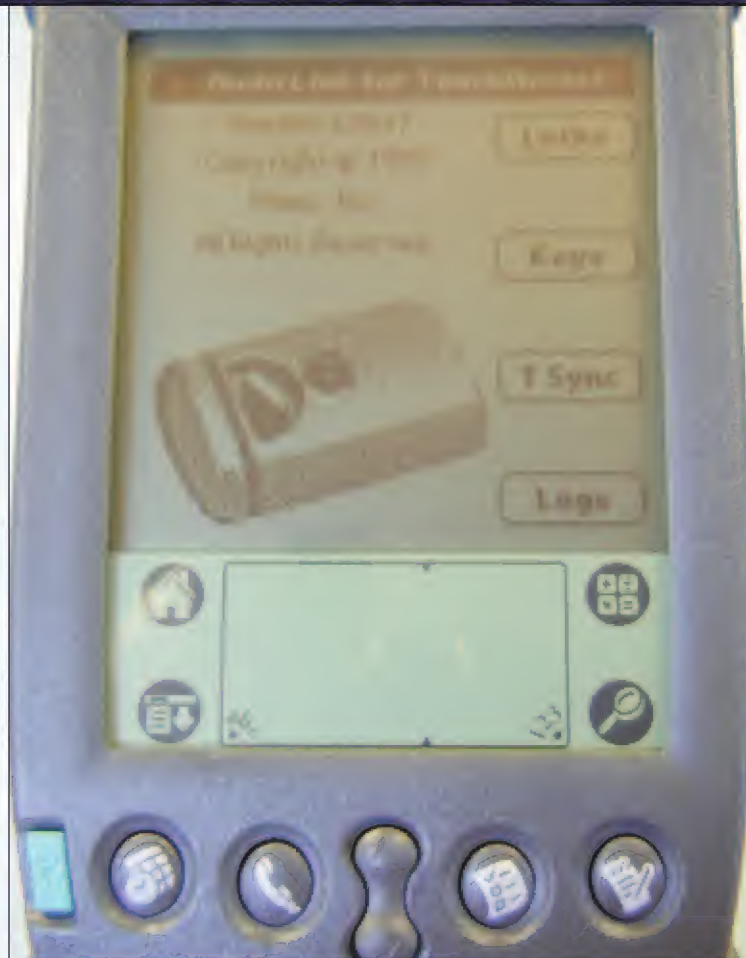


21. The cradle for Palm III that allows connection to the desktop computer.

associated with each group.

The last step in the setup is to assign names and group access to the keys.

1. Attach the key reader cable to a serial port on your computer.
2. From the main menu of the AuditLink software, click "Option" to select the serial port that you have used to



22. The Palm III with AuditLink 200 software running.



The National Locksmith Magazine Subscription

This is THE source for automotive technology, safe opening techniques, electronic security and much, much more.

[CLICK HERE TO LEARN MORE](#)



#SUB - 1,2,3,4,5,6

August 2000 • 23



23. The Palm III reading information from lock.

connected the key reader. (See photograph 27.) When finished, click "OK".

3. Click on the "Keys" button to go to the Keys screen. (See photograph 28.)

4. Touch each key to the key reader (see photograph 29) and the program will display the key serial number (see photograph 30) and give you the option to assign a name to the key. Names are much easier to deal with when looking through a list of audit information.

5. Assign the key to a group and the key will open any lock that is assigned to the same group.

6. HotSync the Palm and computer to transfer this new information to the Palm.

7. T Sync the palm with the lock to add the new user and group information to the lock.

The system is completely ready to use. Keys will open locks when they are supposed to open them. Each "T Sync" will retrieve data from the lock. Each HotSync will transfer the information from the Palm to the computer.

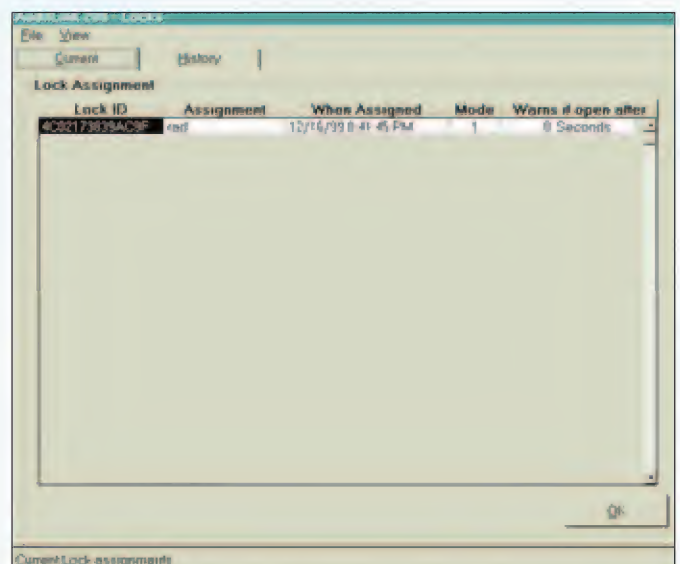
To see your audit information, click the "Logs" button from the AuditLink main menu. A typical audit report looks like the one in photograph 31. As you can see in the report, you get the following information:

- * Key name.
- * Lock name.
- * Date/Time information.
- * Status of the event. This would be like a tamper, denied, closed etc...

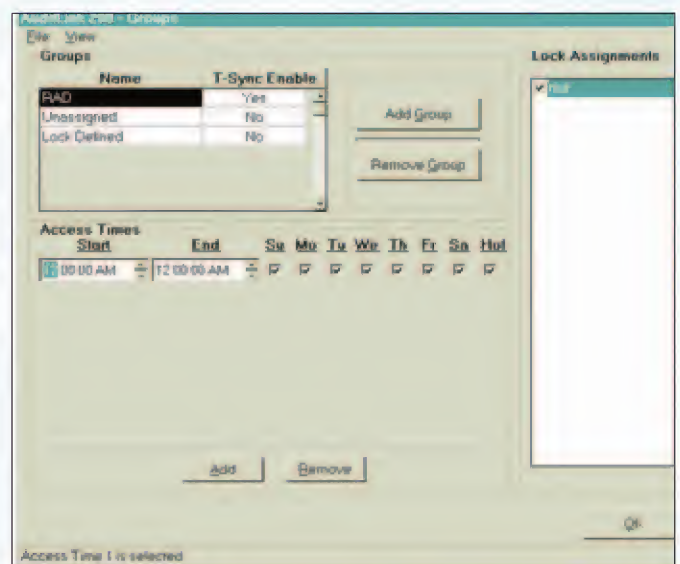
24 • Visit www.TheNationalLocksmith.com



24. The main screen for AuditLink 200 software located on desktop computer.



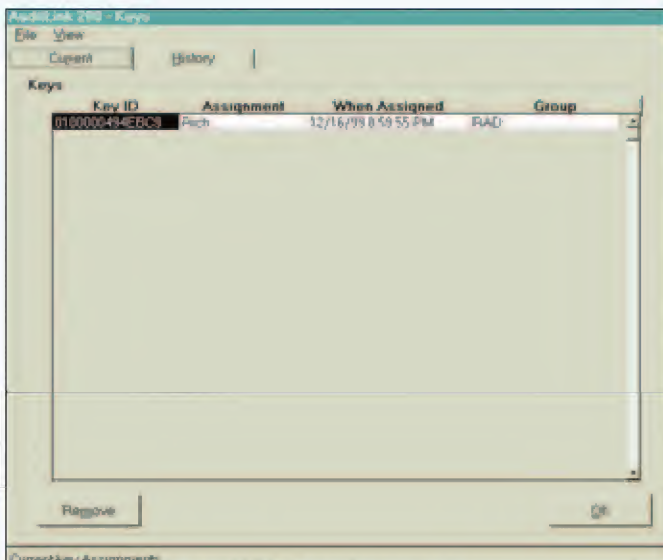
25. This screen will list all locks in system.



26. This screen will list all groups in system.



27. Options screen allow user to choose com port used to read keys.



28. This screen lists all keys in system.



29. Key in key reader connected to desktop computer.

Diary Of A Safeman

Diary Of A Safeman

The journal of safeman C.L. Corey with details of safe cracking in the 1930's. Relive the days of Al Capone



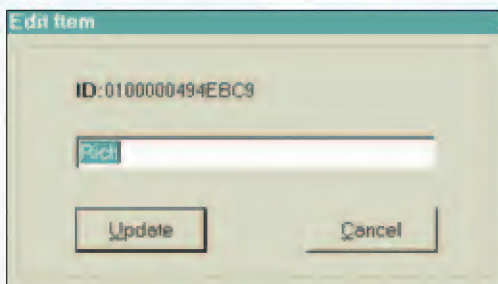
With an Introduction by
Dave Mc Omie

This book is a real gem...the private safe diary of old time safecracker C.L. Corey.

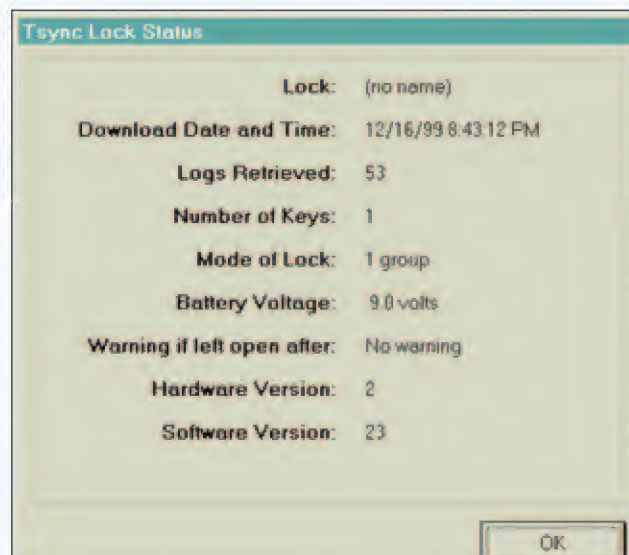
[CLICK HERE TO LEARN MORE](#)



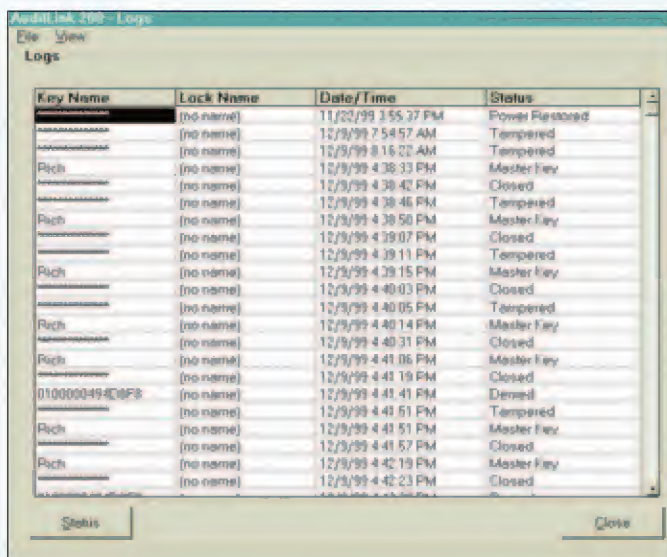
#DIARY



30. This screen displays electronic serial number of key.



33. Lock status as viewed on desktop computer.



31. Typical audit trail viewed on desktop computer.



34. Lock status as viewed on Palm.



32. Typical audit trail viewed on Palm.

Photograph 32, has the same information that would be displayed on the Palm.

If you are curious about the status of the lock itself, you can click on the "Status" button at the bottom of the "Logs" screen. A lock status sample can be seen in *photograph 33*. *Photograph 34*, shows what the audit information looks like when viewed from the Palm. As you can see from *photograph 32 and 34*, most of the important information can be seen on the Palm as soon as it is retrieved from the lock.

Although this is not a high security lock, it definitely has

a place in today's world. Things like confidential files, tools, drugs in hospitals and many other items, all need to be protected for one reason or another. Most things disappear because of opportunity. Sometimes they disappear because several people have a key to the cabinet or storage area.

Without an electronic audit trail, there is no way to tell who opened a lock or when the lock was opened. However, with an audit trail, you will know every time the lock was opened, what time it was opened and whose key was used to open the lock. Information is a powerful tool, but it only works if you have it.

The Videx® TouchAccess™ lock has a retail cost of \$295.00 and comes with one key. Additional keys will cost \$35.00 for a five pack. That is only \$7.00 per key. Not bad by today's standards. The AuditLink software has a retail cost of \$190.00. Your cost for all of the above will be much less.

For more information on the Videx TouchAccess, give them a call at 541-758-0521. If you like computers, look at their web site at www.videx.com or e-mail them at sales@videx.com. They will be glad to hear from you. Circle #281 on the Rapid Reply Card.



The 1999 Mitsubishi Diamonte



by Michael Hyde

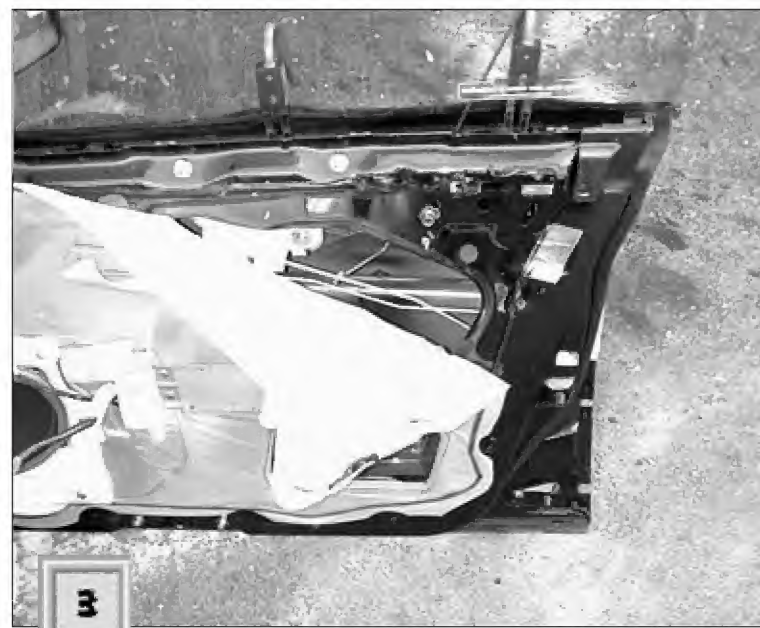


This time out we take a look at the 1999 Mitsubishi Diamonte. It is a rather nice car for the money. The 1999 model has all the fancy features as the higher priced Acura's and Lexus models at a more reasonable price.

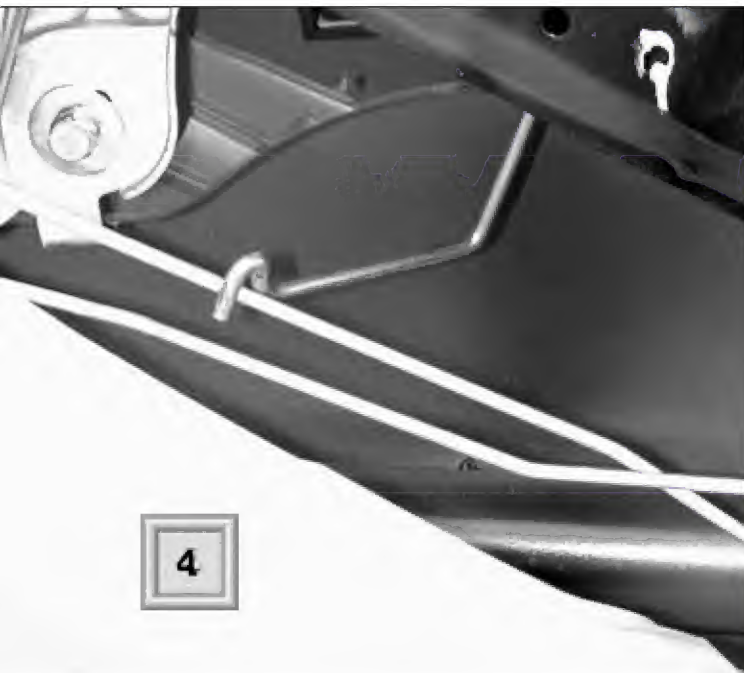
The Diamonte does not have a transponder like it's cousins in Europe. We found this car was a dream to work on from opening to servicing, with a small surprise along the way.



To open this car, use a couple of good wedges and a horizontal slide linkage tool. Insert the tool and the wedges as shown in the photo.



The linkage rods are not shielded at all.



Hook onto the upper linkage rod and bump it forward to unlock the car. The window glass might be a little tight so take care when inserting your wedges. Remember, very cold weather seems to make that door glass really want to break.



The ignition lock on this car and with all other late models Mitsubishi's use an active retainer for the lock cylinder. To get the lock cylinder out you will need to remove some lower dash trim.

High Security Safes Volumes 1 & 2



CLICK HERE TO LEARN MORE

#HSS, HSS - 2

Safe Deposit Box Service



CLICK HERE TO LEARN MORE

#SDBS - 1



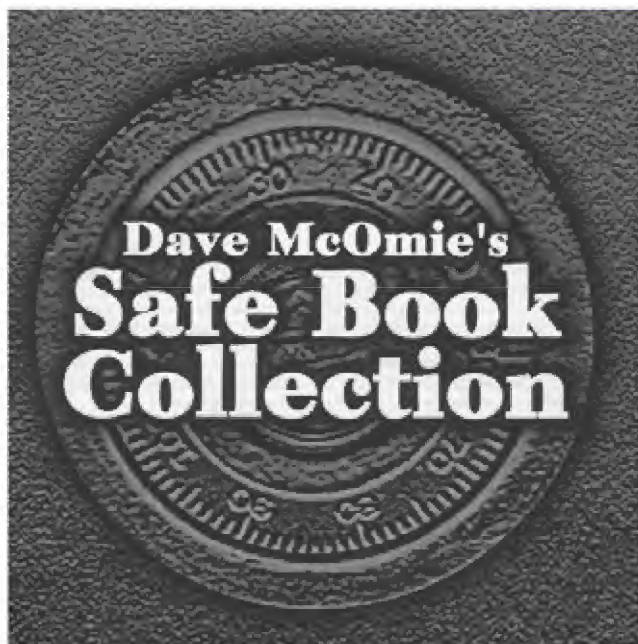
6

The lower dash panel on the driver's side must be removed. There are two plastic trim covers, one on each side of the steering column.



7

Remove the trim covers gently and then remove the two 10mm bolts.



Dave McOmie Safe Book Collection on CD

This CD contains
every book Dave
has ever published.

[CLICK HERE TO LEARN MORE](#)



#DMCD - 1



On the left side of the lower dash panel is the hood release lever. Remove two phillips head screws underneath the lever.



The lower dash panel can now be unsnapped and moved out of the way. The trim piece around the ignition lock is held in place by two phillips head screws. The first screw is pictured and easy to get to.



Once you remove the hood release lever you will see a panel phillips head screw remaining. Remove that screw.



The other trim screw is a little harder to get to. To make it easier, pull back on the center console trim next to it. This will give you more room to get to the screw. Once you have removed the screw, remove the trim cover.

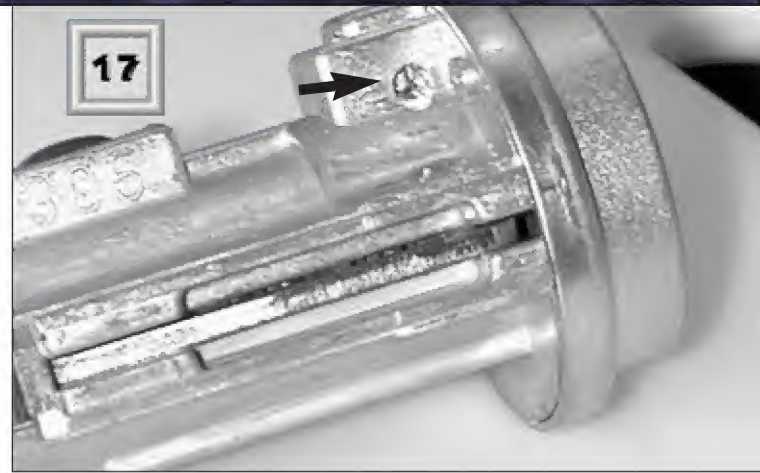


On the right side of the lower dash panel is another phillips head screw that must be removed.



There is an illumination ring surrounding the ignition lock. Remove the 1 phillips head screw holding it in.

32 • Visit www.TheNationalLocksmith.com

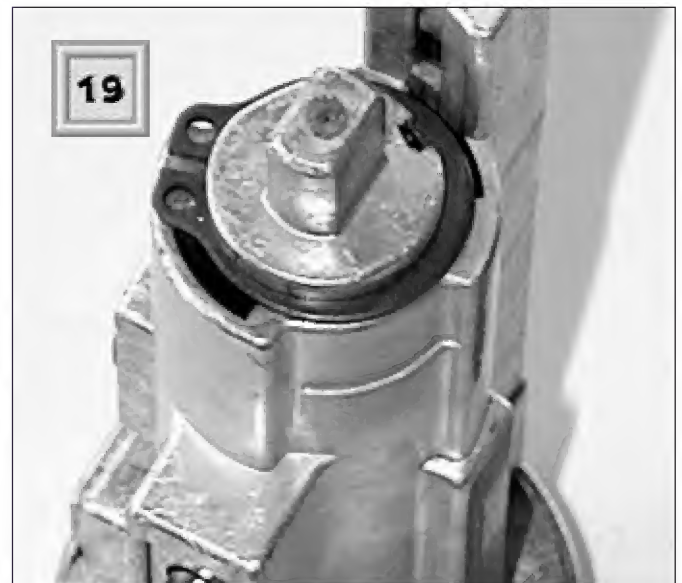
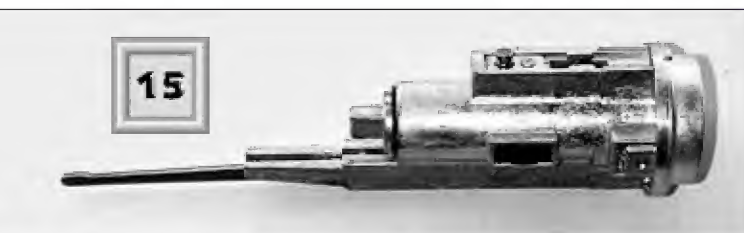


The first thing you will need to do is remove the one small roll pin. There are a couple of ways to do this. The first being to drill directly next to it and prying it out, or drill a 1/8" hole on the side of the pin housing and prying it up from underneath.



There are 2 metal posts that are part of the facecap, which travel through the face of the lock cylinder. They are staked on the backside to help hold the cap in place and add to the security of the lock.

Put the lock cylinder in a vise and use a pin punch to evenly press the posts back through the cylinder housing. Strike one post and then the other, back and forth. Doing this evenly will help to eliminate breaking the posts off.



The next step is to remove the tru-arc ring on the back of the cylinder plug.

To remove the lock cylinder you will need a working key. Insert the working key and turn it to the "ON" position. If you do not have a working key because the ignition lock has been changed or is damaged, there is a couple of options to removing the lock cylinder. You can drill through the face of the lock and drill out the cylinder plug. Another option would be to drill out the retainer pin. The pin will spin if you do not use something to stop it from spinning. I'm sure there are other methods as well, but whatever you choose to do will cause damage to the lock cylinder and it must be replaced.

Here is the ignition lock cylinder removed from the car. This lock looks like a knock off to the Toyota family of ignition locks. They are probably using the same contractor to make them.



This lock cylinder has a metal facecap that must be removed to get the cylinder plug out.

34 • Visit www.TheNationalLocksmith.com



Here is a view of the facecap removed from the lock cylinder housing.



Make sure when you remove the cylinder plug from the lock housing you push it out from the rear and do not pull it from the bow of the key or it could get stuck.



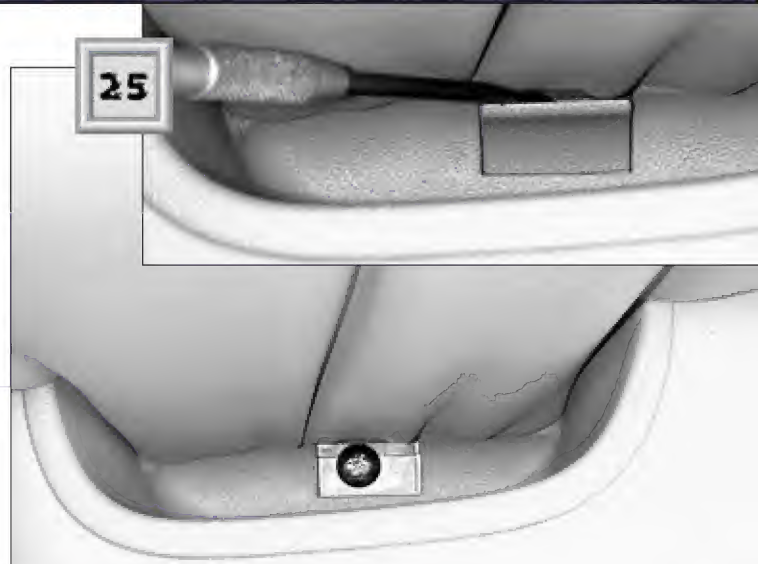
As with other similar locks there is a black buzzer-detent that can fall out of the cylinder plug and get lost easily.



The door lock cylinder on this car is part of the outside handle assembly.



The inside door panel must be removed to service the lock cylinder or to get a key code from it.



To remove the panel, first unsnap the plastic trim cover that hides a panel fastener in the door pull cavity. Unsnap the cover from the side nearest the panel.



Remove the panel screw in the door vent cutout.



There is a screw that secures the inside door release lever trim piece that must be removed. After you remove the screw you can slide off the trim piece.

28



There is a small speaker cover that needs to be removed.

29



The speaker sits on the opposite side of the outside door mirror. The cover snaps off.

30



The inside door panel can now be removed. The remaining fasteners are the plastic push-in style. Be careful when removing the electronic connections to the panel.

31



As with most autos there is a thin plastic weather barrier. Try to be careful when moving it out of the way.



Locksmith Dispatcher 2000

Controlled Service
dispatching software
specifically for
the locksmith!

[CLICK HERE TO LEARN MORE](#)



#DIS - 2000



To make the job easier, remove the three bolts that hold the outside door handle. You can then unsnap the lock cylinder from the handle.



The lock cylinder has an electronic switch that snaps on the back of the lock. There is also a code stamped on the side of the lock. The code series is E5001-E7682.



A view of the lock cylinder clip in the handle.

38 • Visit www.TheNationalLocksmith.com



The lock cylinder can easily be disassembled by removing the facecap and the tailpiece.



The facecap must be reused because there are no replacements.



The door lock cylinder plug contains all eight tumblers in positions.



The trunk lock cylinder is located on the right side of the license plate.

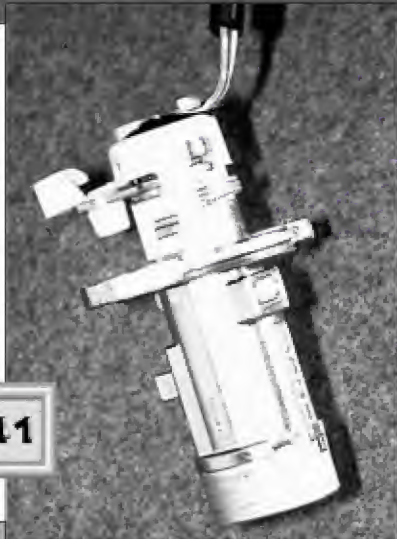


To get to the trunk lock you will need to fold back part of the plastic trunk lid trim liner. The trim liner is held in place with small plastic push-in clips.



40

Disconnect the linkage rod and remove the two 10mm bolts that secure the lock cylinder in place.



41

The lock cylinder has an electronic switch on the back of it that snaps right off.



42

The trunk lock cylinder has a security keeper in it that must be removed. The security keeper is a little piece of metal that acts as a security device to protect the plug from being pulled out by force. The facecap can easily be removed and must be re-used.

40 • Visit www.TheNationalLocksmith.com



43

I found the easiest way to remove the plug keeper was to drill a hole on the side of the keeper housing.



44

Once the housing was drilled pry the keeper up and out.



46

The tailpiece is held on by a "C" clip.



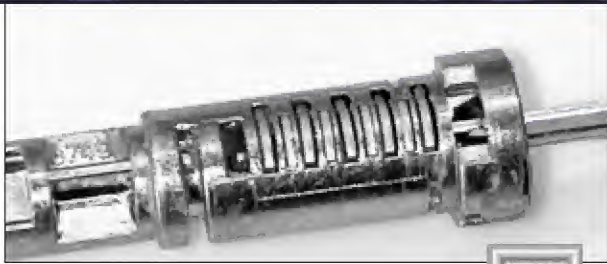
45

A view of the plug keeper.



47

The facecap has two little tabs that pry up easily for removal.



The trunk lock cylinder has nine tumblers in it. The ninth tumbler is a valet tumbler.

48



50

To get the glove box lock out, first remove the black plastic cover on the backside of the lock.



49

A view of the glove box lock assembly.



51

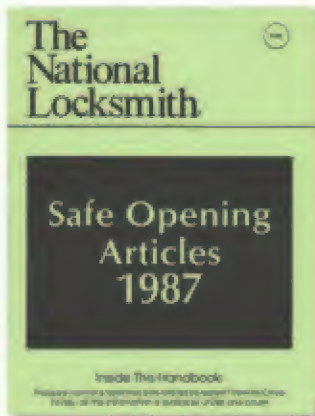
There are two phillips screws that must be removed to get the lock out.



52

A view of the glove box lock cylinder and latch.

Safe Opening Articles 1987



CLICK HERE TO LEARN MORE



#SA - 1

Gun Safes



CLICK HERE TO LEARN MORE



#GS - 1

AutoSmart Advisor



CLICK HERE TO LEARN MORE



#ASA - 2000



To remove the plug, depress the retainer tumbler on the back of the lock housing and slide out the plug.



There are numbers and letters stamped on the side of the lock housing. These are not code numbers.



34 The plug contains five tumblers. There are four depth tumblers in positions 5 through 8. The fifth tumbler is a valet tumbler.



Method #1 - Remove and disassemble trunk cylinder, and decode wafers to make a master key.

Method #2 - Remove and read the code on the passenger door lock cylinder.

A		CODE SERIES: E5001-7679									
Bow		SPACING						Tip	Cut to Cut:	DEPTHS	
1	2	3	4	5	6	7	8	.083		1	.325
.098	.181	.264	.346	.429	.512	.594	.677			2	.297
Key Blanks:		ILCO: X176/MIT1				SILCA: MIT8				3	.270
Reed Codes:		09-02-280				HPC 1200 CM		XF88, CX88		4	.242
Curtis Clipper:		Cam: DC-50		Carriage: TOY-50X		ITL MFG:		196			
PAK-A-Punch		PAK-G04				M.A.C.S.:		2			
NOTES:											

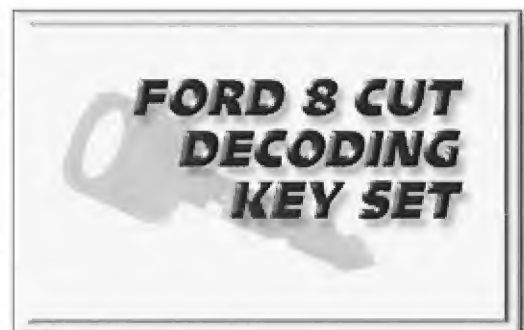


Ford 8 Cut Decoding Key Set

Complete with 143 specially cut keys and simple directions. You get door and ignition keys within just a couple of minutes.



#FD - 8



The Lure of the Lock

This hardcover book, compiled in 1928, features dozens and dozens of beautiful photographs on ancient through modern locks.



#LURE



W-LOK

by
Sal Dulcamaro,
CML



Totally Stainless Steel Padlocks

I first learned about W-LOK in early 1999. Its claim to fame is a completely stainless steel padlock - inside and out. It caught my attention when I learned that the U.S. headquarters for the company would be in Michigan. Now I'm in the southeast end of the state, and they're on the western side of the state in the city of Holland. We're in the same state, but that's hardly next door. Still, considering where most of the other lock companies in the country are, it is relatively close.

The first sample padlocks that I saw were massive and otherwise

physically impressive, although the operation of the key was a bit awkward (a problem that was later corrected). As I recall, there was a challenge to the locksmith community to check out the product and see how it held up against the worst torture and abuse they could muster. I don't know how many different locksmiths saw that original challenge, but about 350 locksmiths gave some input after attempting to put it through its paces.

What's the Big Deal About Stainless Steel?

There seems to be a lot of good things to say about a stainless steel padlock. First of all, it looks good. Probably more important, it is very

strong and corrosion resistant. The material alone might argue for this particular padlock in a variety of environments and circumstances. When I said the padlock was stainless steel, I didn't mean just the padlock body. The shackle, cylinder, tumblers and even the shackle spring are made of stainless steel.

The 9800 series of padlocks and cylinders were the first to be available, but by the time you read this the even more interesting 9900 cylinder series padlocks should probably be shipping.

Photograph 1, shows a SK-9850G stainless steel guarded padlock. This style padlock comes in four sizes: SK-9840G, SK-9850G (shown), SK-9860G and the largest SK-9870G. It is similar to the standard version except for the shackle guard that makes access to the shackle for cutting or prying more difficult. Dimensions and other specs are available on the web site.

Nearly identical in size (except for the shackle guard), the SK-9850 padlock is shown in *photograph 2*. The corresponding four sizes are: SK-9840, SK-9850 (shown), SK-9860 and SK-9870. The serial (code) number for the lock cylinder is marked on the face of the cylinder, and likewise on the keys and on the back of the tag/card shown on the lid of the box in this photograph. The serial number is printed on the back of the card as a concealed password for ordering additional keys. I'll explain that in more detail later.

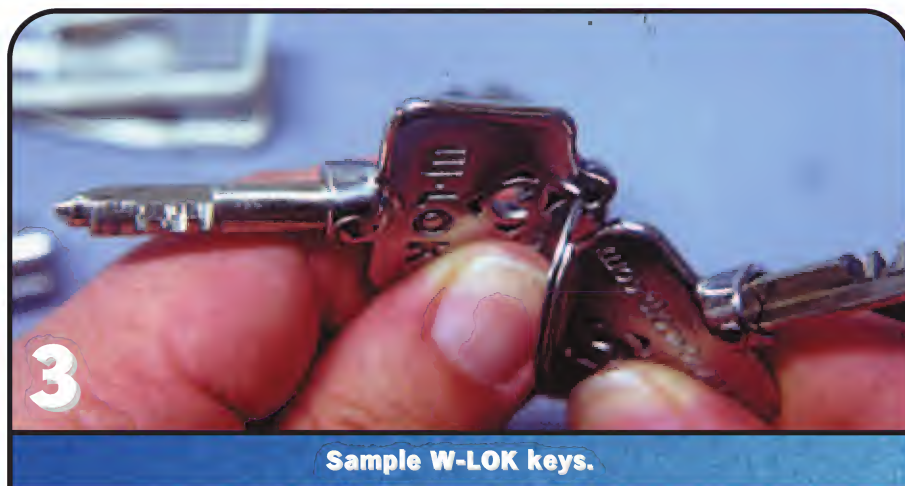
The shackle clearance (for the standard shackles) ranges from 1 to 1.5 inches, from smallest to largest of the 9800 series padlocks. Optional shackles are available with shackle clearance lengths of 2, 3, 4, 5 and 6 inches.



The W-LOK SK-9850G stainless steel guarded padlock.



The SK-9850 padlock.



Sample W-LOK keys.

The W-LOK Keys

Photograph 3, shows some sample W-LOK keys. If you start with the 360 degrees of a circle and remove a 90-degree arc, you get the 270-degree profile of the W-LOK key blank. The W-LOK uses a variety of different tumbler patterns with variable angle cut positions for the increments. The number of steps (or different cut angles) would vary depending on the angle increment. With all those theoretical tumbler angle variations, the actual keying possibilities are staggering.

I did say cut "angles" and not "depths". If you are familiar with Abloy, you might be thinking that W-LOK is just a variation of that. That is no more

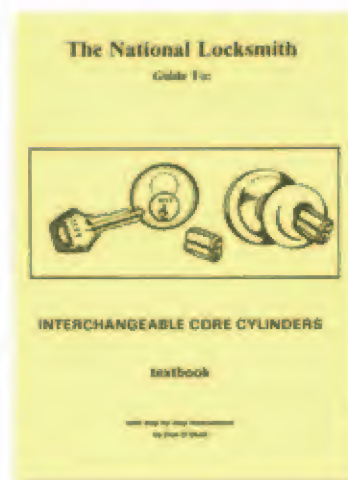
the case than one pin tumbler based product being essentially the same as another because they share common style tumblers. Except for the common operation of a rotating disc tumbler lock cylinder, Abloy and W-LOK are two essentially different locks.

Cylinder Changing

Changing a lock cylinder for the W-LOK padlocks is a quick and easy task. I will illustrate the process with a cutaway body padlock shown in *photograph 4*. It is otherwise identical to the padlock in *photograph 2*.

The first step is to unlock the lock. The key rotates clockwise to unlock. There are certain characteristics of

Interchangeable Core Cylinders



Covers all this...

- Best/ Falcon/ Arrow/ Eagle/ (A2) • Best A3
- Best A4 • Corbin X Removable Core
- Corbin Z Removable Core • Russwin Removable Core
- Emhart System 70 Removable Core
- Sargent Removable Core • Schlage, Yale, Lockwood • Medeco Removable Core

CLICK HERE TO LEARN MORE



#ICB - 1

rotating disc tumbler locks that you must adjust to if you are not familiar with them. A wrong key will turn inside the lock cylinder, just not far enough to unlock it.

Any W-LOK key will turn at least one half turn. If it is the correct key, it will turn beyond that point and unlock the padlock. If the (right or wrong) key is not fully inserted, it will turn endlessly in circles and accomplish nothing. If the key does that, work it further into the keyway until it the key tip engages the actuating piece at the back of the keyway. You can tell that it has been reached by the key stopping after a half turn (with a wrong key) or actually opening the lock (with a correct key).

Once the padlock is unlocked, the shackle spring will move the shackle outward slightly. You will need to pull the shackle a bit further out, as in *photograph 5*, so that the heel end of the shackle moves out of the path of the access hole in the side of the padlock body. A 3-mm diameter screw acts as a retainer to hold the cylinder inside the padlock body, although the cam at the end of the lock cylinder directly locks into the notch at the toe end of the shackle. Even if the retainer screw was not tightened, the cylinder could not come out until the padlock was unlocked first.

A 1.5-mm Allen (hex) wrench is inserted in the access hole, and the screw is turned counterclockwise until the cylinder is released. The current crop of padlocks are key retaining, so you will have to keep the key in the cylinder until the cylinder is out of the lock body. To avoid losing the ball bearing or retainer screw, it might be best to hold the padlock so the heel end of the shackle is down (as in the photo) to allow gravity to keep all the internal parts in place. The cylinder can be pulled out as in *photograph 6*.

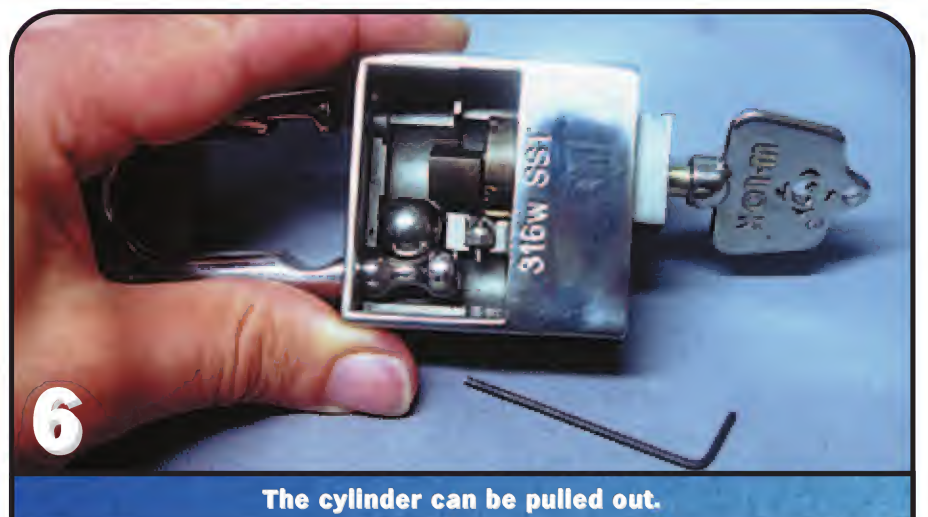
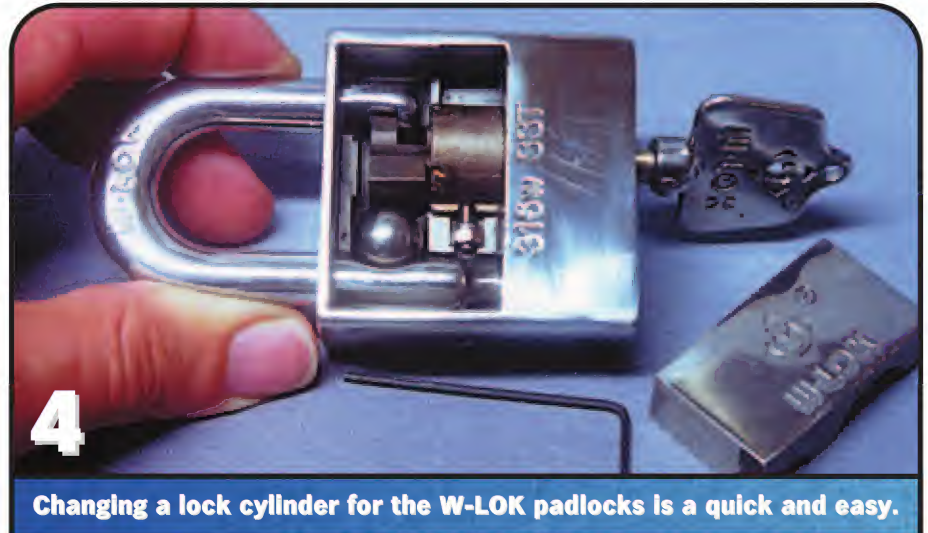
You can see the square opening on the bottom of the padlock, in *photograph 7*, where the cylinder has been removed. The shackle can be removed after the cylinder has come out, if you wish to install a longer shackle. If the screw or ball bearing come out, they will have to be repositioned before replacing the cylinder. The models 9860 and 9870 will have two ball bearings as opposed to the 9840 and 9850 that have only one. A new cylinder should have the key turned (to unlock) so the cam does not interfere with the ball bearing on insertion. Make sure the

notch is positioned properly for the retainer screw, before re-tightening to install the new cylinder.

How the Cylinder Works

Being a rotating disc tumbler lock cylinder, the W-LOK cylinder operates

on the same basic principles as Abloy's or other similar cylinders. A cutaway W-LOK cylinder is shown in *photograph 8*. In the cutout section at the top, you can see the locking "side" bar slightly risen above the surface of the inner sleeve. Another view can be seen in *photograph*



9. Here the sleeve is removed from the outer shell or housing.

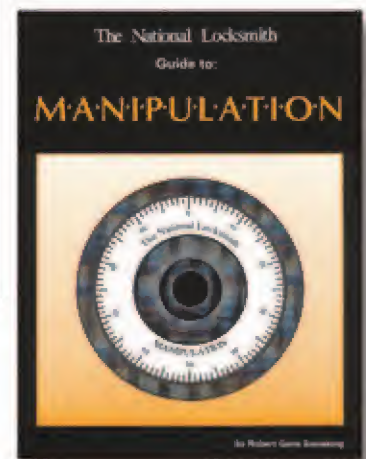
The locking bar sticks up slightly above the surface of the sleeve. A slot inside the circular cavity of the shell can be seen just above and to the right of the sleeve. The cam is physically attached to the sleeve with a roll pin. As long as the bar protrudes out of the sleeve and into the slot in the shell, the

sleeve cannot rotate and the cam will not disengage and unlock the padlock.

Photograph 10, shows some of the rotating discs and the spacer/friction washers loose with other parts. The notched cuts on the tumblers act like the gates on the wheels of a safe lock, while the locking bar simulates the action of the fence. The angled key cuts position each tumbler in different



Manipulation Home Study Course



Our home study course guides you on step-by-step process, teaching you everything there is to know about manipulation.

[CLICK HERE TO LEARN MORE](#)

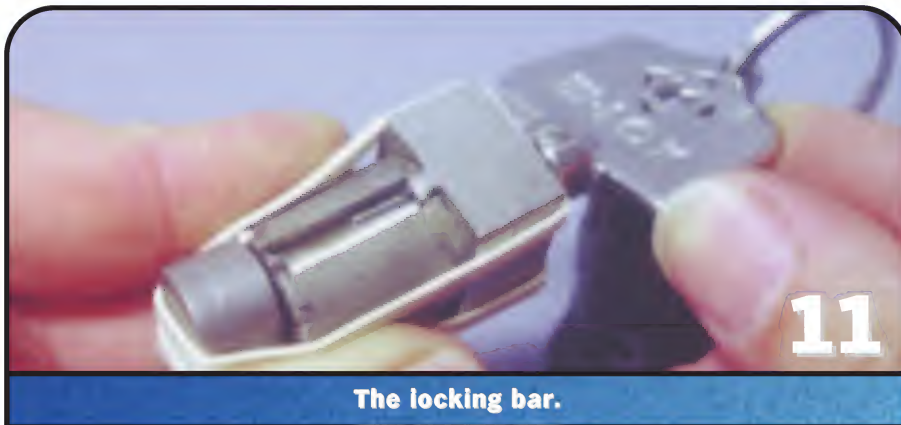


#MAN - 1

August 2000 • 49



Some of the rotating discs.



The locking bar.

opening of the sleeve. The tip of the key engages that opening, as the two shapes match. The cutaway, in *photograph 11*, shows the locking bar even with the outside of the sleeve, which is allowing the key to rotate far enough to unlock the cylinder. All 9800 series cylinders are compatible with all sizes of 9800 series padlocks.

Keys and Servicing W-LOK Padlocks

To the hard core tech, the W-LOK might be a slight disappointment. There are strict factory controls and physical rekeying (tumbler replacement) is reserved for the factory. Switching cylinders is the limit of rekeying for the locksmith in the field. This is done to absolutely guarantee that the customer will have a truly unique biting combination that is not shared by anyone. No locksmith in the field will be able to accidentally create a pattern used by somebody else.

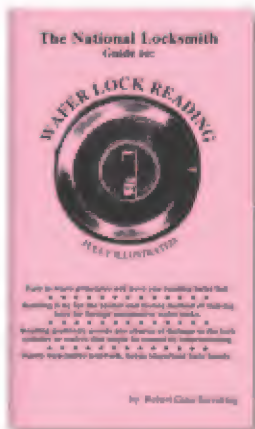
This is a specialty lock and designed for certain types of customers. The guy who wants a 99 cent padlock to keep the wind from blowing open his shed door will not likely be in the market for the W-LOK. This is for a customer who wants a heavy duty, corrosion resistant padlock. The cylinder in *photograph 12*, sat in muriatic (concrete etch) acid for over twelve hours, and the key still operated the cylinder without lubricating first.

It is also a key control padlock. The back of the card (on the inside cover of the lock package), in *photograph 2*, has the serial number of the lock/key and a password under a rub off coating (not unlike various types "scratch and win" lottery tickets). The customer knows that nobody else knows the password as long as the coating concealing the password is intact.

Duplicate keys will only be made for the holder of both the serial number and password. For now, locksmith dealers are not cutting keys. If offered, though, the cost of the key machine might still make the locksmith want to order keys from the factory. The factory will not sell keys direct to a customer, but through the W-LOK dealer in the region who sold the padlock.

For dealer or product information, contact: W-LOK Corporation, 861 Productions Place, Holland, MI 49423. Phone: 616/355-4015. Toll Free: 877/355-9565. FAX: 616/355-4295. E-mail: office@wlokcorp.com. Find them on the web at: www.wlokcorp.com. Circle 278 on Rapid Reply. **TL**

Wafer Lock Reading



CLICK HERE TO LEARN MORE

#WLR - 1



Twelve hours in muriatic and the key still operated.

positions during rotation. On completion of the key rotation, all the gates should form a straight line just below the locking bar. Further rotation forces the bar into the gates, so the sleeve can turn within the shell. That is the movement that continues past the standard 180 rotation regardless the cut combination.

A wrong key would not allow the bar to drop, and the sleeve could not rotate within the shell. In my fingertips is the sleeve and the actuating piece is visible within the

Quick Entry

UPDATE

by
Steve
Young



2000 DODGE NEON

The 2000 Dodge Neon is one of the least expensive vehicles on the market that comes with a transponder system as standard equipment. (See photograph 1.) Although the Chrysler "Sentry Key" transponder system can be serviced by locksmiths in the field, it is not a system that many locksmiths are equipped to handle. Two things are necessary to originate a key for a Sentry Key equipped vehicle.

First, you will have to have a device known as the "DART" (Diagnostic and Reprogramming Tool). This computerized programming device is specific for Chrysler vehicles and is available through Chrysler or Strattec.

Secondly, you will have to have a four-digit number that is specific to the individual vehicle. This number is often referred to as the PIN (Personal Identification Number) for the vehicle. Unfortunately, access to this number is restricted to Chrysler Corporation dealerships and Chrysler authorized service organizations. In addition, the number that you need may not be listed as the "PIN" number. Depending on who is retrieving the information for you, you may have to refer to the number as the "Smart Key" number, "Transponder Code" or as the "Secondary Key Code".

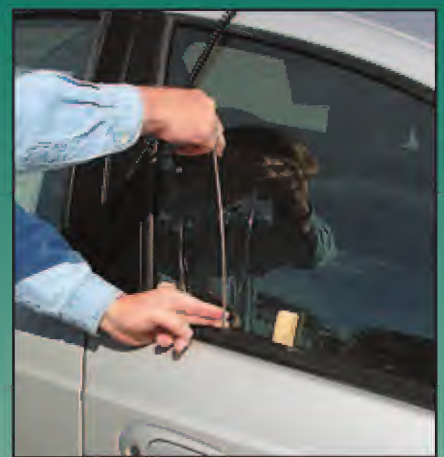
Because both the DART machine and the "PIN" number are needed to program a vehicle, I strongly suggest that before you purchase the DART machine, you make sure that you can get access to the PIN numbers that you will need.



1. 2000 Dodge Neon.



2. Wedge open the base of the window directly above the outside door handle.



3. Using the short end of the tool, lever the upper linkage rod forward to unlock the door.



4. The tool grips the upper of two linkage rods inside the door.

Fortunately, unlocking the Neon is a lot easier than making keys for it. Either the TT-1003 (*see illustration A*) tool or the TT-1015 tool (*see illustration B*) can be used to unlock the Neon quite easily.

To use the TT-1003 tool, begin by wedging open the weather-stripping directly above the outside door handle. (*See photograph 2.*) The Neon is equipped with multi-layer weather-stripping, and you will need to use caution while inserting your wedges. If the tip of your wedge is not properly inserted between the glass and all the layers of the weather-stripping, the lower layers will “roll” under your wedge. This will interfere with inserting the tool and it may damage the weather-stripping.

I begin by inserting a plastic card or plastic putty-knife between the weather-stripping and the glass. Then, I insert the wedge between the plastic card and the glass, eliminating damage to the weather-stripping.

Once you have wedged open a gap between the glass and the weather-stripping, insert an inspection light into the door cavity and visually locate the two diagonally linkage rods inside the door. (*See photograph 3.*) Both rods will be encased in a white plastic anti-rattle tube made of a webbed material. This anti-rattle tube will not prevent you from attacking the linkage rod, but it will make it slightly more difficult to get a good grip on the rod. The upper of the two rods is the inside lock control linkage rod.

Once you have located the rods, insert the short end of the tool into the door and grasp the upper linkage rod. Twist the top of the tool in order to grip the linkage and then lever the linkage rod forward to unlock the door. (*See photograph 4.*)

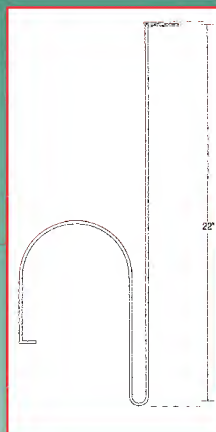
To unlock the Neon using the TT-1015 “Under Window Tool”, begin by wedging open the weather-stripping at the base of the window near the front. (*See photograph 5.*)

Once you have an opening into the door cavity, insert the tool with the tip pointed toward the front of the vehicle. Work the tool into the door until you feel the upper bend in the tool pass below the base of the window glass. Carefully pull upward

Quick Reference Guide	
Vehicle: 2000 Dodge Neon	Security System: Sentry Key Transponder system (Smart Key)
Direction Of Turn: Clockwise (pass side)	Lock Manufacturer: Strattec
Tool: TT-1003 or TT-1015	Code Series: M0001-M2618
Lock System: Chrysler 8-cut system by Strattec	Key Blank: Strattec 598495, Ilco Y160-PT
Bitting Ignition, doors and trunk 1-8	



A. The TT-1003 tool.



B. The TT-1015 tool.



5. To use the TT-1015 tool, wedge the base of the window open near the front of the door.



6. Use the tip of the tool to operate the inside lock control rocker.

7. The tip of the tool can also be used to operate the power door lock control.

on the tool until you can see the upper part of the tool begin to come up past the inside weather-stripping.

As soon as you are sure that the tool will pass the weather-stripping, stop pulling up on the tool, and remove the wedges. Failure to remove the wedges may put too much strain on the window glass, causing it to break.

After the wedges have been removed, pull up on the tool until the tip is free of the inside weather-stripping. Once the tip of the tool is

inside the passenger compartment, use the tool to operate either the inside lock control rocker (*see photograph 6*) or the power door lock control. (*See photograph 7.*)

The Neon uses a sash-style door that has a substantial frame all the way around the window. This makes the Neon relatively easy to unlock with the Tech-Train “Jiffy-Jak Vehicle Entry System” as well as by the two methods outlined above.



ISC East Exhibitor Listings August 29 - 31

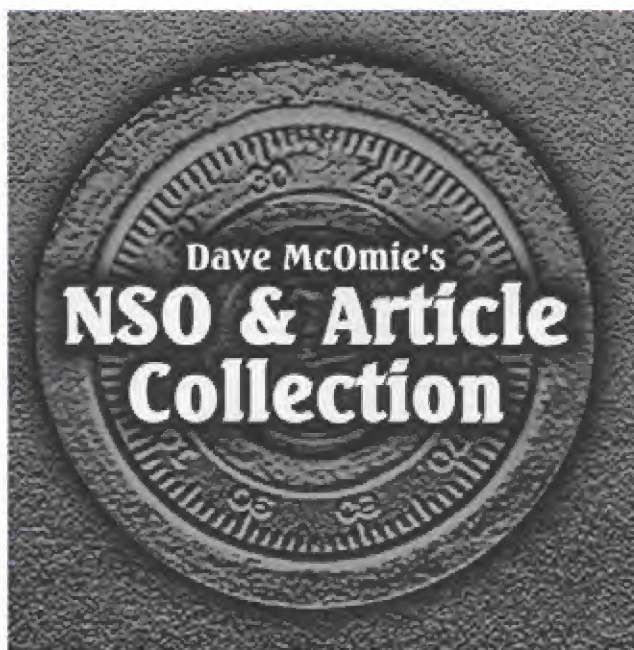


Jacob K. Javits Convention Center New York City

Company	Booth #	Company	Booth #	Company	Booth #	Company	Booth #
3R Technologies.....	773	Business Solutions Magazine /		Electronics Line	1045	Instantel Inc.	1864
4NSYS Co, Ltd.	966	Integrated Solutions.....	2459	Elite Access Systems	343	Integral Technologies, Inc.....	1155
8x8, Inc.	862	Butterworth Heineman	1142	Elk Products, Inc.....	2319	International Electronics Inc.....	529
Access Control Magazine &		C P Films	526	Elmo.....	961	International Fiber Systems	655
SSI/Seguridad Latina	1344	C.O.P.S. Monitoring.....	847	Emergency 24.....	1149	Interstate Battery	2340
Ace Lock & Security Supply.....	2145	Caddx Controls Inc.	1437	Empire Scientific.....	2362	Iriscan	1467
Ace Wire & Cable Co. Inc.	1476	Canadian Flexi Drills	2238	ES 2000 Errichter Software GmbH	522	ISO/Rainbow CCTV	1059
ACT Meters Ltd.....	2136	Canon USA.....	2541	Evax Systems	2524	ITI.....	1729
ADC Technologies Int'l. PTE Ltd.	1462	Canon USA, Inc.	660	Exent Technologies Ltd.	680	Ivec Corp.	786
Ademco.....	1419	Capricorn Electronics, Inc.....	1355	Extreme CCTV Surveillance	219	J. Batko Inc.	667
Ademco-Northern Computers.....	545	Cardac Inc.	1331	Exxon Mobil Corp.	216	J. O'Brien Co.	1866
ADI.....	819	Carol Products Co.	1037	EyeCast.com	462	J.C. Gury Co.	240
Adrian Steel Co.....	2173	CBC America Corp.	2219	EyeZoom	1061	JBE	979
ADT Security Services, Inc.	2007	CCS Communications Int'l.....	1878	Faraday LLC	2273	Jeron Electronic Systems, Inc.	2525
Adtek Corp.	882	CE Pro Magazine.....	423	Fargo Electronics, Inc.	1767	JJ Communications	1172
Advanced Electronics Group Inc.	1124	Central One Monitoring.....	1067	Fiber Options	955	JLM Wholesale Inc.	2537
Advanced Technology Video, Inc.	766	Central Station Alarm Association	2505	Fiber SenSys, Inc.	458	Johnson Controls.....	729
Advanta Leasing Services	329	Central Vacuum Supply.....	242	Financial Security Services.....	461	Joseph A. Thomas, Ltd.....	2348
Adyoron Intelligent Systems, Ltd.	1086	Chapman Technologies Inc.	2519	Fire.Lite Alarms, Inc.	519	Jullien Enterprises	1375
AEI Components/Accele.....	472	Checkpoint Systems, Inc.	1486	First Information &		Kalatel, Inc.	967
AES-IntelliNet	2137	CI 3 Software	270	Communications Co. Ltd.	2367	Keltron Corp.....	1360
Affiliated Central Inc.....	1654	Clark Security Products	1249	Flair Electronics, Inc.	1236	Keri Systems, Inc.	1778
Aiphone Communication Systems.....	1461	Clover Electronics.....	1479	Fog Security Inc.	486	Key Systems Inc.	2041
Alarm Central, Inc.	1145	Code Access Inc.	1972	Formosa USA, Inc.	542	Keystone Wire & Cable Co.	1247
Alarm Monitoring Center.....	2532	Code Blue Corp.	1264	Frisco Bay Industries	577	King Central	2305
Alarm Processing Corp.....	1579	COM.A.T System Co. Ltd.	1158	FSS One Inc.	463	Kodo Int'l Co. Ltd.	349
Alarmax, Inc.	229	Computerized Monitoring Svcs.....	2513	G Tech Korea Co., Ltd.....	2436	Kowa Optimed, Inc.	666
AlarmSoft Inc.	313	Conduemex, Inc.	2366	Garrett Metal Detectors	2360	KP Electronics Inc.....	1237
AlarmWatch Monitoring	1363	Continental Instruments LLC	1760	Genesis Cable Systems, L.L.C.....	518	Labor Saving Devices.....	237
Alarmx.com, Inc.	1341	Controlware Communications.....	1163	Gentex Corp.	1173	Lanex, LLC	1077
Alaph International.....	2349	Copylete.....	2062	Genwac.....	973	Lease Acceptance Corp.	1240
A-Link Corp.....	1473	Core Technologies.....	1629	GeoVision	2533	LeaseComm Corp.	410
All American Monitoring.....	1258	C-Phone.....	572	Giga Technology.....	2501	Lee Dan Communications Inc.....	1342
Alpha Communications Inc.	220	Crow Electronic Eng. Inc.	536	GK Industries, Inc.	679	LEX Solutions	1565
Altronix Corp.	2001	CSI/Speco/Pro-Video.....	947	Glass Sentinel.....	1162	Linear Corp.	1619
Amcest Corp.	1031	CTEC	2409	Golden State Instrument Co.	255	Linear Corp.	1865
Amco Engineering Co.....	2372	D/B Cameras-Microcheck / Ducommun		GRI	244	Linear/Channel Plus	418
Ameba Technology Inc.	778	Technologies, Inc.....	1319	Guardall North America	1860	Linear/Xantech.....	422
American Fibertek Inc.	1248	Dallas Semiconductor.....	210	Guatel, LTD.	1241	Louroe Electronics	661
American Video Equipment	861	Darim Vision Co. Ltd.....	873	GYR Inc.	2325	Lucasey Manufacturing Corp.....	860
Amseco	1963	Delsy Electronic Components AG	1773	Hanchett Entry Systems, Inc.	1267	Lyle Signs Inc.	2241
Anicom Inc.	1064	Delta Designs	1345	HID Corp.	2018	Macurco Gas Detectors	260
Applied Biometrics Products, Inc.	1664	Detection Systems Inc. / Radionics	837	Hilton Trading Corp.	1161	Marks USA	1944
Applied Integration Corp.....	1146	Detektor Magazine.....	1160	Hirsch Electronics Corp.	1837	Marray Enterprises, Inc.....	2138
Appro Technology, Inc.....	676	Detex Corp.....	2045	Home Automation Inc.	318	Marshall Electronics.....	1041
Architectural Control Systems	2250	Dice Corp.	855	Home Systems	426	Maxwell Alarm Screen Mfg.	1436
Associazone Intel.....	222	Digital Logic, Inc.	1454	Homeowners Marketing Services.....	443	Mayflower Sales Co. Inc.	2043
Astronics	1573	Digital Monitoring Products.....	2031	Honeywell Security Products	409	MBM Corp.....	2431
Atlas Wire & Cable.....	1340	Digital Security Controls Ltd.	1701	Hsintek Electronics Inc.	978	MCDI.....	315
Atop Technologies, Inc.	779	Digital Security Controls Ltd.	1901	Hunno Technologies Inc.	2449	Medtronic Pysio-Control Corp.....	356
ATW/Alarm Technology Worldwide	465	Digital Security Controls Ltd.	1911	Hunt Electronics USA Inc.	1458	Micro Key Software, Inc.....	528
Automatic Control Systems	1679	Digital Vision Systems, Inc.	1947	I.Q.InVision	2361	Micrologistics	310
AV Tech Corp.	865	Ditek Inc.	1063	ID Systems	1140	MicroJack Multimedia Inc.	2550
Awid, Inc.	1665	DoorKing, Inc.	1137	IDC	2331	Mirtone.....	1242
Axis Communications, Inc.	673	Dortronics Systems, Inc.	1660	Ideal Industries Inc.....	419	Monarc Technologies LLC.....	2341
B & B Battery (USA) Inc.....	2142	dps. Data Protection Ltd.	1678	Identix	1465	Monitoring Automation Systems	1755
B.E.S. Mfg.....	328	DSX Access Systems, Inc.	2205	Idesco Corp.	1560	Monitronics International, Inc.....	2155
Barantec	1564	Dynalock Corp.	2425	Ifsec- Miller Freeman	2344	Monthly Security World	2551
Bec Technologies Inc.	886	Eastern Info-com	2456	Ikegami Electronics (USA), Inc.	573	Morse Watchmans, Inc.....	2261
Belden Electronics Division	231	Easy Lobby - Electronic Visitor		Ilco Unican Inc.	1855	Motorola	1561
Biometric Identification Inc.....	1366	Management.....	372	iMonitoring.com, Inc.....	2211	MSC Specialty Films, Inc.....	221
Biometrics 2000.COM Corp.....	1764	Echostar Communications Corp.	249	Impro Distribution S.E. (USA)	1469	Napco Security Group, Inc.....	601
Bi-Tronics Inc.	1446	Edwards Signal & Fire Alarm	540	IMS Inc.	2444	National Electronics	561
Bogotech Co., Ltd.	2437	EK Eccessories, Inc.....	1879	InfoGraphic Systems Corp.....	2167	Navarro Security Inc.	428
Bold Technologies Ltd.	2265	Elbex America NY Inc.	1073	Ingersoll-Rand Architectural Hardware		NBFAA - National Burglar	228
Bolide.....	672	Electrical Contractor Magazine	1966	1749	NearCom Technology, Inc.	2255
Brink's Home Security, Inc.....	2236	Electronic Services Agency	429	Innovative Business Software.....	314	Network Video Technologies, Inc.	761
Business & Facility Concepts	2536			Inovonics Corp.	1960	New Era Publication Co.....	2263

Company	Booth #	Company	Booth #	Company	Booth #	Company	Booth #
Nextern	1673	Remee Products	2144	SenTech EAS Corp.	330	Top Notch Distributors, Inc.	2141
NICE Systems	765	Remote Vision Pte Ltd.	781	Sentex Systems Inc.	1372	Total Recall Corp.	879
Noritake Co., Inc.	1260	Remotetv.com	456	Seyeon Tech. Co., Ltd.	2440	ToteVision	1472
North American Cable	2359	Research Electronics Int'l.	1167	Shepherd Security Systems Ltd.	1083	Transtector Systems Inc.	2243
Northern Information Tech	567	Resource Technology Int'l.	1060	Signs of Security, Inc.	1979	Tri-Ed Distribution, Inc.	1937
NTSI	1245	Ria Electronic, Inc.	2337	Silent Witness	755	Trine Products Co.	1667
Odyssey Technologies	780	Rodman & Company	2555	Sims Inc.	524	TriWest/USI	1845
Okayama Enterprises, Inc.	665	Rokonet Industries	337	Smit Co., Ltd.	2355	Ultra Electronics Card Systems	437
Omron Electronics, Inc.	1238	Roll-A-Way	1779	Softcon (Software Control Svcs)	1765	Underwriters Laboratories Inc.	2407
Opcom USA, Inc.	473	Rume Corp./Sound Threshold		Sonntag	1147	Unikor	2457
Optex	629	System	764	Sony Electronics	1719	United Security Products	1136
Opticom Technologies, Inc.	962	Rutherford Controls Inc.	1761	Southwest Microwave	1154	Unix Business Machine	664
Ortronics Inc.	441	S & KC Communications	2066	Sprint North Supply	1743	Uplink Security, Inc.	2512
Osborne-Hoffman Inc.	1263	S.K. Global Co., Ltd.	2061	Stat Resources, Inc.	1164	Urbaco USA	1578
OSI Security Devices	1978	S.T.A. Products Corp	554	Strategic Vista Corp.	2313	V Protect System, Inc.	663
PacketWare/Traconic	201	Safeguards Technology, Inc.	431	Street Smart Security	1464	Varta Batteries	1474
Panagroup	1365	Safety Technology Int'l.	2161	Supply Dog	2073	Versus Technology	1873
Panasonic Security &		Safety Vision Inc.	887	Surelock McGill Ltd.	2147	Vicon Industries Inc.	745
Digital Imaging Co.	1636	Saflok	2148	Sur-Gard Security Communications ..	1918	Video Mount Products	658
Panavise Products, Inc.	964	Samsung Opto-Electronics	2225	Syac USA	867	Videology Imaging Solutions	1273
Parabit Systems	1047	Sanyo Fisher Co.	466	Synergistic	2237	Vision Factory	555
Paso Sound Products, Inc.	1358	SDM	2467	System Sensor	1737	Visiontech	2463
PCSC	1661	Seco-Larm USA Inc.	2078	Tamron USA, Inc.	560	Visonic Inc.	1447
Pelco	718	Secura Key	831	Tane Alarm Products	1347	Visual Methods, Inc.	1448
Pentanix Co., Ltd.	2447	Securitech Group, Inc.	2037	Tatung	564	Voim Technologies Inc.	683
Pentax Corp.	654	Securiton Magnalock Corp.	1929	TekLink Security, Inc. (aka Mace Grp) ..	878	Watec America Corp.	2067
PHI Enterprises, Inc.	368	Security Alarm Financing		Telecontrol Systems	576	Webgate Inc.	1359
PI Manufacturing	2342	Enterprises, Inc.	1266	Telesite USA Inc.	336	Weigh-Tronix	1165
PlanetCCTV.Com, Inc.	563	Security Dealer	2508	Telexper Inc.	306	Wheelock, Inc.	2419
Potter Electric Signal Co.	2060	Security Door Controls	2055	Telular Corp.	1337	Whitby Consultancy	311
Power-Sonic Corp.	1460	Security Industry Association	1131	Testrite Instrument, Co., Inc.	1159	Wing Enterprises Inc.	432
Protech/Protection Tech	331	Security Information Systems	412	Tevicom Electronic Co., Ltd.	2443	Winland Electronics	2401
Protection One	1646	Security Lock Dist.	1566	Texecom Ltd.	2336	Winnertec System, Co., Ltd.	2455
ProxID	2248	Security Products Magazine	1362	The Essential Guides Ltd.	2429	Winsted Corp.	1055
Pulnix Sensors, Inc.	447	Security Sales Magazine	1259	The Mechanic Group	460	Wren Associates	1078
Quartermaster	1118	Security Systems News	2345	Third Eye Systems	207	X-10 Pro	1442
RadioShack.com	883	Security Technology & Design	2245	Thunderous Sounders Electronic Ltd.	223	Yale Security Group Americas	1455
RAI Rosslare America, Inc.	213	SecurityCameras.com	454	Tiscor	960	Yuasa Inc.	1246
Ranger Security Detectors, Inc.	1567	Securitylink From Ameritech	931	TLSI	1265		
Rapid Response Monitoring Serv	537	Se-Kure Controls, Inc.	355	Tokina Industrial, Inc.	354		
Record/Playtek, Inc.	1325	Select Engineered Systems, Inc.	1861	Tomsed Corp.	1148		

TNL



Dave McOmie NSO & Article Collection on CD

This CD contains every NSO newsletter and McOmie File Dave has ever published.

CLICK HERE TO LEARN MORE



#DMCD - 2

PRODUCT SHOWCASE

ISC East - August 2000

Circle the numbers on the **RAPID REPLY CARD** and send it in.

Jensen JTM-300 Dual Display DMMs

CIRCLE NUMBER
310



The new JTM-300 and JTM-305 Extended Range DMMs have an EL backlit display for low-light viewing. Large primary and smaller secondary readouts for dual reading speed troubleshooting. Onscreen menu selections are the easiest to use in any meter. Fast updating and zoomable bar graph indicate rapid changes. These meters are ruggedly built and have watertight gaskets to keep out moisture and dust. The rubber holster protects against impact. Both models come with all the accessories needed for measurement, as well as a 9V battery. The JTM-305 comes with everything needed to connect to a PC. The LabView-based software lets you control the instrument and take readings from the PC. RS-232 cable, adapter and beaded probe for temperature are also included.

For more information call:
(800) 426-1194; Fax (800) 366-9662;
Web: www.jensentools.com.

DynaLock's SlimLine Maglock

DynaLock's new SlimLine 2050 low profile series maglock is 1-1/2" wide and only projects 2-1/16" into the door opening providing the popular low profile needed to maintain the required clearance for door heights of seven feet or less. The narrow width may also eliminate the need for additional mounting brackets. The 2050 exerts 1200 Lbs. holding force, is field selectable 12 or 24 AC/DC, includes adjustable mounting and surge protection. Popular options include architectural finishes, time delay, door position and lock status sensors.

For more information: Phone:
(877) 369-2562; Fax: (860) 585-0338;
E-mail: dynalock.corp@snet.net;
Web: www.dynalock.com.



CIRCLE NUMBER
311

double and even sliding doors; low voltage (12 or 24 VDC); low current draw (200mA to 425mA current); choice of US28 or US40 finishes and its competitively priced. These high tech electromagnetic locks offer the high quality and exceptional value you've come to expect.

For more information call:
(800) 645-9445 Ex 64

S&G Comptronic 6150 Expands Security Options

CIRCLE NUMBER
313



Sargent & Greenleaf has a comprehensive electronic safe lock management system specifically designed for containers with more than one door. The new Comptronic Model 6150 offers a time lock feature, allowing controlled access to two independently programmed safe locks. The system's broad range of applications meets the security needs of virtually any retail establishment,

Alarm Lock's PowerMag Locks



CIRCLE NUMBER
312

Alarm Lock Systems, Inc. has a new series of PowerMag Electromagnetic Locks. PowerMags can be installed in under one hour with just four easy steps. Some of the outstanding features include a series of models with strong holding force of 600 and 1200 lbs.; worry free egress in any emergency as soon as the power is cut off; perfect for single,

and includes time delay, duress and an audit trail. A brand new input panel design features large, easy-to-read keys and LCD, providing two lines of visual information to communicate events while the lock is in use. The new Comptronic 6150 maximizes security and convenience by enabling different users to operate two independent safe locks from a single input panel.

For more information call: (800) 826-7652; Web: www.sglocks.com.

GardLok E312



CIRCLE NUMBER
314

SAFLOK introduces a new electronic push button deadbolt lock for wood or hollow metal doors - the GardLok E312. This popularly priced tubular latch replacement with a 1" deadbolt throw reduces future re-keying expenses. A Master P.I.N. Code permits the user to add or delete up to nine other user P.I.N. codes. GardLok is battery operated and installs in minutes.

RCI Stand Alone Card Reader

Looking for an access



CIRCLE NUMBER
315

control solution that combines simplicity with reliability? Check out RCI's Easy Read-Mag Stripe card reader. This small, stand-alone reader is weather-resistant, easy to program and ideal for up to 1000 users. Best of all it works with any Track II mag stripe card, including a bankcard, drivers license or credit card. The bottom line? Easy Read brings a new level of convenience to commercial, institutional and even high-end residential access control projects.

New Folger Adam Products

Folger Adam Inc. introduced its new locking magnets, accessories and modular power supplies. These products are designed to be easily



CIRCLE NUMBER
316

installed in both new and retrofit applications to meet more user needs and provide access control flexibility. Folger Adam locking magnets provide dependable security for securing a perimeter, controlling entry to warehouses or computer rooms, and delayed egress. Modular power supplies and accessories have been added to the Folger Adam product line in order to enhance and compliment the strong product offering of electric strikes and locking magnets.

SDC's Delayed Egress Controller

The SDC 101V-DEC Exit Check is the most technologically advanced delayed egress controller available. The integral digital countdown display, verbal exit instructions and sign



CIRCLE NUMBER
317

PUSH UNTIL ALARM SOUNDS. DOOR CAN BE OPENED IN 15 SECONDS.

provides a comprehensive and clear message of door operation for persons without prior knowledge of the exit delay, including the blind and hearing impaired. The SDC Exit

Check controller is UL Listed for use with all SDC Emlocks for the purpose of controlling wandering patients, deterring shoplifting and employee theft. Code compliance includes NFPA 101, UBC, SBC and BOCA.

Image Vault Digital Controllers

Image Vault's 5.0 playback software now offers Internet connectivity. Any business with an internal local area network (LAN) and a direct connection to the Internet can access images via the network, utilizing a TCP/IP address. This works well for those customers that have larger installations, such as schools or have numerous buildings in a campus type environment. This is just another method to connect remotely to the digital recorder and allows customers flexibility in accessing digital images. Customers can continue to access images either on-site with their laptop or desktop computer or remotely with



CIRCLE NUMBER
318

their modem. Image Vault is a full-featured multifunction digital recorder, priced at or below the cost of a



CIRCLE NUMBER
319

traditional VCR system. As a multifunction device Image Vault eliminates the need for CCTV accessory equipment like multiplexers, switchers and the like.

Optex WonderTrack

WT-110, a 4-zone digital event recorder and sequential switcher brings digital recording to new 'low cost' markets. Crystal clear digital images from up to 4 cameras are stored to 8MB-64MB smart media cards for easy retrieval. Since there's no tape or recording heads to wear-out, WT-110 provides many years of reliable and easy operation. A perfect problem solver for small recording applications.

CIRCLE NUMBER
320

Locknetics Retrofit Access Control

Locknetics Security Engineering has unveiled the 993 Series Programmable Access Control Exit Trim for use with existing Von Duprin 98 and 99 Series exit devices. The 993 provides powerful, programmable access control in the form of easy-to-install standalone trim and electronics that require no additional wiring. Four, common AA batteries power the 993 for approximately three years' life. Batteries are replaced in seconds. The 993 Series offers users a choice of access control credentials



including ABA-standard magnetic stripe cards, HID-based proximity cards or fobs, TouchEntry electronic keys, or keypad codes. Combinations of these credentials can be used for

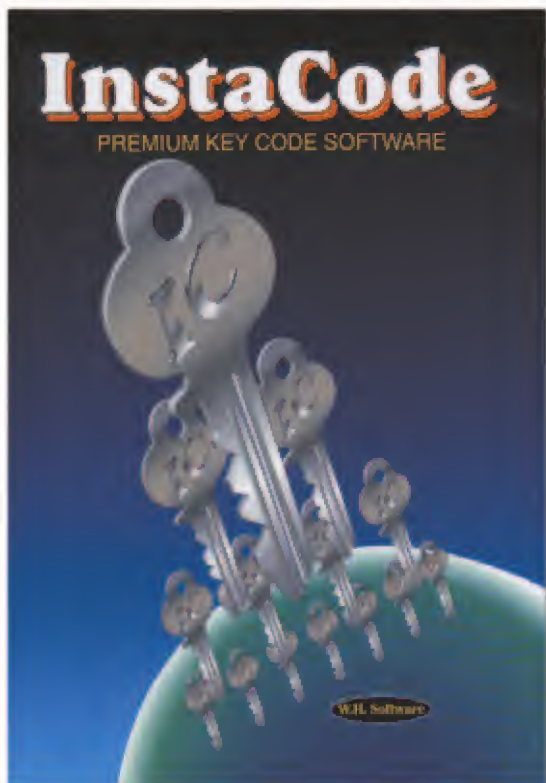
various functions or to increase security.

Visonic's Outdoor Keypad



CIRCLE NUMBER
321

Visonic Inc. CL-80 stand-alone digital keypad for access control provides all the features dealers request: 56 user codes, high powered relay, programmable timer (0-98 seconds) or latching operation, request to exit input and auxiliary output. The CL-80 can withstand temperatures from 0° F to 150°, and is weatherproof to IP54 standard. Three onboard LED's provide visual status information. A panic output can be triggered by pressing # and * keys simultaneously. A penalty timer prevents unauthorized entry by locking the keypad for 30 seconds after three consecutive invalid codes have been entered. **TUL**



#IC - 2001

InstaCode

Your total code and code machine management program.



CLICK HERE TO LEARN MORE

New Technical CD

Digital Monitoring Products, Inc. announces the release of a new technical CD with information on



products offered by DMP. It is a first source reference guide to any question you may have about product specifications, installation sheets, or general descriptions. Photographs are included as well as an up to date document library in pdf format. You can also find Y2K information, compliance documentation, and much more.

For more information call:

(800) 641-4282;

Web: www.dmpnet.com or circle 282 on Rapid Reply.

Automatic Gate Supply's Product Catalog

Automatic Gate Supply Company recently completed a new 51-page catalog. The catalog offers 'one stop' shopping featuring a complete line of access control equipment and gate hardware. You'll want to keep this catalog close at hand. It contains specs, diagrams and dimensions that installers will find extremely helpful in preparing for their jobs.

For this new catalog call:

(800) 423-3090;

Web: agsopeners@earthlink.net or circle 283 on Rapid Reply.

Omnia Industries Cabinet Hardware Brochure

Selecting cabinet hardware is easier than ever with Omnia industries new consumer pamphlet. Over 50 families of knobs, pulls and handles are represented, in traditional, contemporary and ornate styles. Whether consumers chose to match, contrast or complement their home or office's existing doorknobs and levers, Omnia's newly expanded cabinet



hardware collection affords design options for every room. The brochure includes full color photographs and complete dimensions, allowing



consumers to select the hardware that best enhances interior cabinetry with complete confidence.

For the catalog call: (973) 239-7272 or circle 284 on Rapid Reply.

Omnia Industries

Omnia Industries has produced a new brochure to acquaint consumers with their extensive line of interior and exterior locksets. Traditional, ornate and contemporary designs are available in solid brass as interior latchsets, narrow plate latchsets, mortise locksets, deadbolt locksets,



narrow backset locks and mortise entry sets.

For a brochure call: (973) 239-7272 or circle 285 on Rapid Reply.

Trine Brochure Poster Combination on Electric Strikes

Trine Products Company has just issued an informative booklet and poster on EN Fire Rated strikes and accessories. The brochure contains photos and relevant data on all EN strikes. It also includes a cross-reference chart and information on Trine's new EN-LB Sensor, the unique optical IR accessory that confirms positive latching of a lockset within an EN strike. It contains model descriptions, templates, compatible lockset data and additional information to facilitate the job of determining the specific strikes most suitable for specific applications.

For the booklet call: (718) 829-2332;

Fax: (718) 829-6405;

Web: www.trineprod.com;

E-Mail: accesscust@trineprod.com or circle 286 on Rapid Reply.

ESSEX Openings Source Goes Online

Essexopenings.com has a new and exciting tool for specifying commercial door opening products - The ESSEX Openings Source. This is

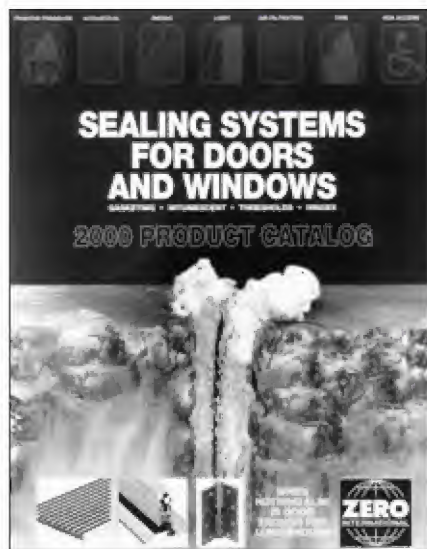


an online library of total openings for various applications and all of the information necessary for specifying the major components of each opening. The ESSEX Openings Source lists a package of products ideal for each opening, complete with specifications and detailed drawings for every product. Openings are categorized by application. In addition, there is information on openings and products ideal for various ADA, fire safety and security applications.

For more information visit
www.essexopenings.com or circle 287
on Rapid Reply.

Zero International Expanded Catalog

Newly expanded to 40 pages, Zero International's 2000 catalog features new products, listings and



applications. The catalog provides specification guidance and full-size schematics for hundreds of components and integrated systems for blocking air, light and sound, as well as flames and smoke.

For a catalog call: (800) 635-5335;
Fax: (800) 851-0000;
E-mail: Zero@zerointernational.com;
Web: www.zerointernational.com or
circle 288 on Rapid Reply.

New Von Duprin Literature on Electronic Access Control

A new 8-page color catalog describes the Von Duprin e.Primus Access Control System. It is designed to operate hardwired door hardware such as electrified panic or fire exit hardware, electric strikes, electromagnetic locks and other electrified locks. The Von Duprin



system is fully compatible with all Schlage e.Primus Electronic Key Control Systems. Its standard features now include a comprehensive range of time functions.

The catalog explains the system's features and time functions.

Catalogs can be obtained through
Von Duprin distributors or from
Von Duprin, P.O. Box 6023,
Indianapolis, IN 46206 or circle 289
on Rapid Reply.

Architectural Builders Hardware Brochure

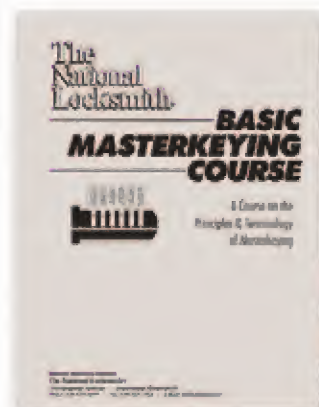
ABH has a new brochure featuring its 6700 Series Hospital Push/Pull Trim can be used on most manufacturer's mortise locks with no additional door preparation. Existing mortise locks with knobs can be quickly and easily changed to push/pulls for ADA compliance. The trim can be mounted up, down, horizontally or any combination without any changes in the field. This unique product is available in most BHMA finishes and can be shipped on the target 3 (3 day shipping) program.

To receive a brochure call:
(847) 437-9901; Fax (800) 932-9924;
E-mail abhinfo@abhmfg.com or circle
290 on Rapid Reply.

RCI 2000 Catalog and Price Book

Rutherford Controls Int'l. Corp. (RCI) has set the bar even higher in the year 2000. The company has introduced a new RCI product catalog. The new literature contains useful information such as lock types, frame types, pictorial UL listing guides and typical

Basic Masterkeying Course



13 Lesson
450 page course

The Basic Masterkeying course is designed for the locksmith who wishes to become proficient in Basic Masterkeying.

CLICK HERE TO LEARN MORE



#MK - 1



applications. Product segments are color-coded and coordinate with RCI's new packaging, making product selection even easier. It features new products such as RCI's new "quick-to-install" 8310 Electromagnetic Lock (now complete with built-in time delay), Easy Read Card Readers, improved Mini Magnets and new Power Supplies.

To receive a copy call: 800-899-5625;
Web: www.rutherfordcontrols.com or
circle 300 on Rapid Reply.

Alarm Lock's New Brochure on the Trilogy T3

Alarm Lock Systems, a division of NAPCO Security Group, has just released a six-page brochure for its very popular Trilogy Locks. With access control being the fastest growing market in the security industry, the demand and popularity of the Trilogy T2 and T3 have increased tremendously. This colorful brochure emphasizes the outstanding features, including pictures and descriptions. Both the Alarm Lock Trilogy T2 and T3 electronic digital locks are specifically designed for entrance door to any area or facility requiring a varying degree of privacy or controlled entry. With the T2 and T3 waterproof models, outdoor applications are worry-free too.

For a free copy of the brochure call:
(800) ALA-LOCK and specify part
number ALA140A or circle 301 on
Rapid Reply.

Lockmasters 2000 Education Catalog

The new 2000 education catalog is a guide to all the exciting classes currently available from Lockmasters. In the catalog you'll find a detailed description of each class. Also included is pricing, a list of take-home items, and a complete schedule. The Lockmasters Security Management curriculum includes a unique combination of hands-on technical training and security management training.

For a catalog call: (800) 654-0637;
Web: www.lockmasters.com or circle
302 on Rapid Reply.

Security Lock Distributors Catalog

Security Lock has released a huge new catalog containing thousands of today's most important life safety and security devices. Security maintains full inventory of every access control product made by the nation's major



manufacturers including, among many others, Schlage, Von Duprin, Adams Rite, Folger Adam, Simplex, Detex, Locknetics, LCN and Arrow. The catalog contains detailed information on specifications, operational characteristics, finishes, functions, accessories and options. Cross-sections, application data, voltages, switching data and ordering information are also included.

For a catalog call: (800) 847-5625;
fax: (800) 878-6400;
e-mail: info@seclock.com;
web: www.seclock.com or circle 303 on
Rapid Reply.

Mercure High Security Catalog

Mercure High Security is happy to announce the arrival of MOTTURA in the US. MOTTURA is Italy's #1 leading manufacturer of high security products. Their product line is vast and consists of safes, latches, sidelocks, and multi-point locks for doors, overhead garage doors, armored doors and window shutters. There are several hundred articles available in their 300-page catalog. Their locks and safes are of a very high quality and are very easy to install - yet very difficult to break into.

For more information call:
(310) 391-6499, or fax (310) 313-6685
or circle 304 on Rapid Reply.

New Brochure from InstaKey Lock Corporation

InstaKey Lock Corporation is offering their latest product brochure free to security professionals and facility managers (will customize this line for each market). InstaKey is a customizable key-based access control system that provides instant capability to re-key and re-pin locks without hardware changes or the services of a special technician. This patented system is a cost-effective alternative to electronic keying. The four page, four color InstaKey brochure explains the key control program, which involves a patented method of removing stacks of wafers from the columns of a lock cylinder, one wafer at a time.

For a brochure call: (800) 316-5397;
InstaKey.com or circle 305 on Rapid
Reply.

New Brochure Available from Locknetics

Locknetics Security Engineering has published a new, 12-page brochure on the MagForce Plus electromagnetic lock product line. Based on Locknetics' industry-leading 390 electromagnetic lock, the MagForce Plus Series features simplified components with consistent installation procedures across the different models, simplified wiring, and modular circuit boards.

The literature also provides a convenient chart that summarizes the various features, options, and finishes available on each of the MagForce Plus models. Suggested architectural specifications, dimensions, single and double door application information, finishes and full how-to-order information is included.

For a brochure call: (860) 584-9158;
E-mail: info@locknetics.com or circle
306 on Rapid Reply.

Martco Offers New Catalog

The new Martco 2000 Catalog is now available to dealers. The 60-page catalog, from the only full-service CCTV distributor, features product pricing on the most popular makes and models of Closed Circuit Television equipment and accessories.

Call (800) 233-7769 or
(800) 399-7769 or
E-mail contact@martcoinc.com
for your free copy or circle 307 on
Rapid Reply.





Tubular Locks

by Bob Sieveking

Part Three



Servicing tubular locks has long been a profitable portion of most locksmith businesses. Until recently, I had given little thought to giving them as much attention as they deserve.

The locks covered so far have all used a more or less standard 1137 (ILCO) key, but be aware that there are other keyways and configurations in use. Their applications, however, are usually limited to proprietary systems that most locksmiths will seldom see.

This month, we are going to make keys for the tubular locks we have studied over the last two months. The first step in generating a tubular key to dimension is to decode the key.

Let's begin by taking a close look at four different measuring devices used to decode the depths of the tubular key. *Photograph 1*, shows two different types of key decoders. The First is the new style HPC decoder. This is a step gauge. Each of the calibrated steps is designed to measure the cut depth specified on the gauge. Note that one side of this

gauge measures odd numbered cut depths and the other side measures the even numbered cut depths.

The second key decoder is also by HPC. It is a step gauge just like the previous one, but all of the steps are on one side of the tool. The remaining decoders are by A-1 manufacturing. They are plastic blocks, with raised pins, or posts, that are calibrated to measure the cut depths in the key. The older models were black, but the newer model is brightly colored. The brighter color makes the gauge much easier to read.

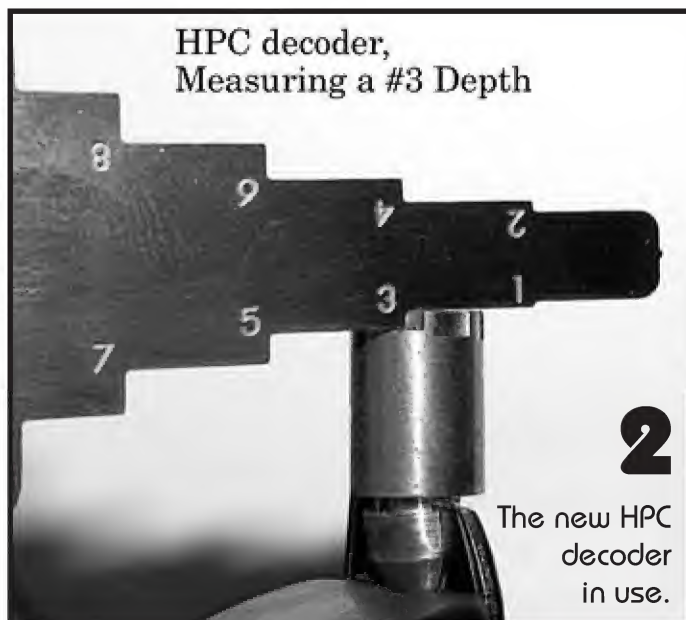
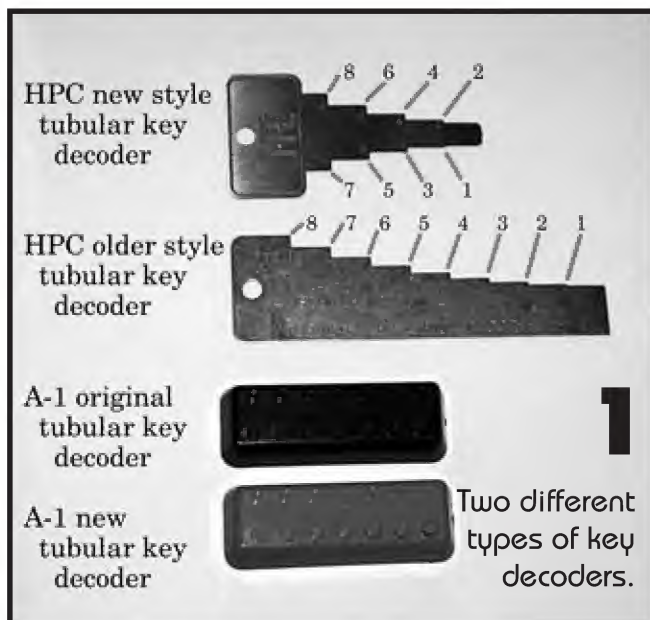
- The Step Gauge -

Photograph 2, shows the new HPC decoder in use. The cut being measured is a #3 depth. Lay the wide flat portion of the gauge on the tip of the key as you see in the photograph. Try the step, in the cut. If the step does not fully fill the cut, the depth being read is deeper. If the step will not enter the cut from the side, the cut is shallower. Note that the gauge shows our cut depth to be a three.

Many Chicago cylinders will contain all odd numbered cut depths. I offer this as a personal observation. It may not be a hard and fast rule, but it certainly is very common. This measuring device is a little handier to use with only the odd cuts on one side.

Photograph 3, shows the original HPC decoder in use. Note that the step indicates that we are measuring a #3 depth. Use care in measuring worn tubular keys. The long flat, forward of the measuring step, can be used to bridge and measure from a less worn area on the key tip. Cuts are read in a clockwise direction around the key tip as viewed from the bow. Hold the key by the bow, with the tip pointing away from you. The number one cut is the first cut to the right of the "locating key."

Read the cuts in a clockwise direction and write down the results. This seven-digit number will be the actual bitting of the key. If you are cutting from a code, Chicago® codes will be published using this "clockwise" convention. (Fort®, Gem®, and Apex® codes are the opposite



direction. They will be found published in the counter-clockwise direction.)

- The Post Gauge -

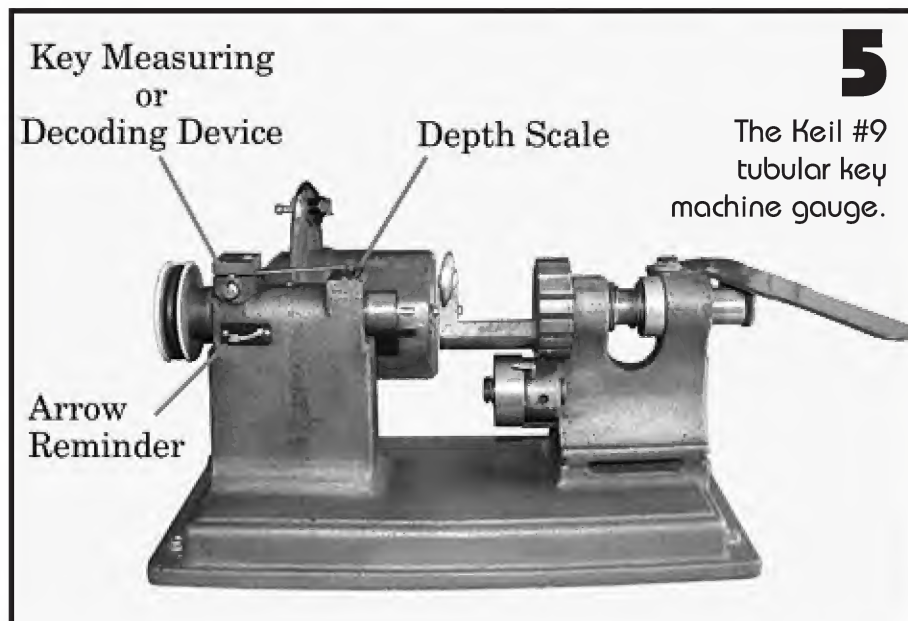
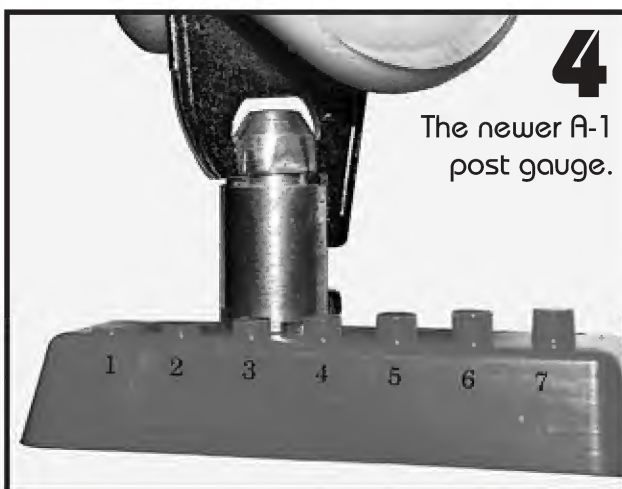
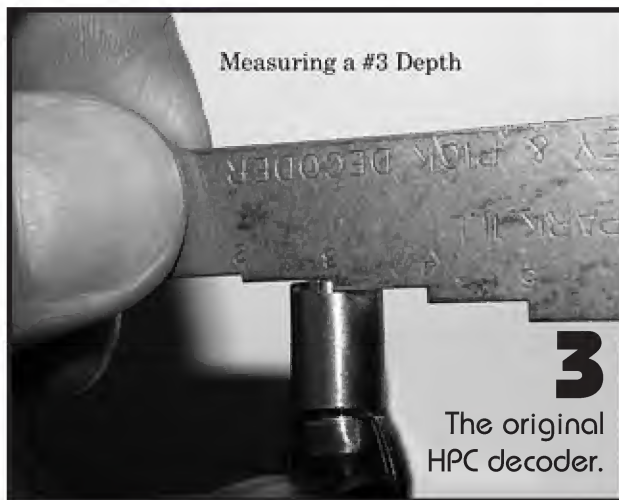
The second type of key gauge is a "post gauge." *Photograph 4*, shows the newer A-1 post gauge in use. The posts are graduated from a one depth on the left, to a seven depth on the far right. No #8 depth is represented on this gauge. The posts are labeled on the top surface of the gauge. Hold the tip of the key flat to the gauge and slide it over the post to measure the cut depth. If the post is too tall to fit into the cut, move to a shorter post. Again, in the photograph, we are measuring a #3 cut depth. The new light colored plastic is much easier to read than the older style black gauge.

- The Mechanical Gauge -

The last key gauge we will consider is a mechanical gauge. It is part of the Keil #9 tubular key machine, as you see in *photograph 5*. The key measuring and

decoding device is located on top of the cutter spindle housing. The arrow reminder indicates the proper rotation of the key for reading the cuts.

Photograph 6, shows a close detail of the reading mechanism. The key



Lock Repair Manual

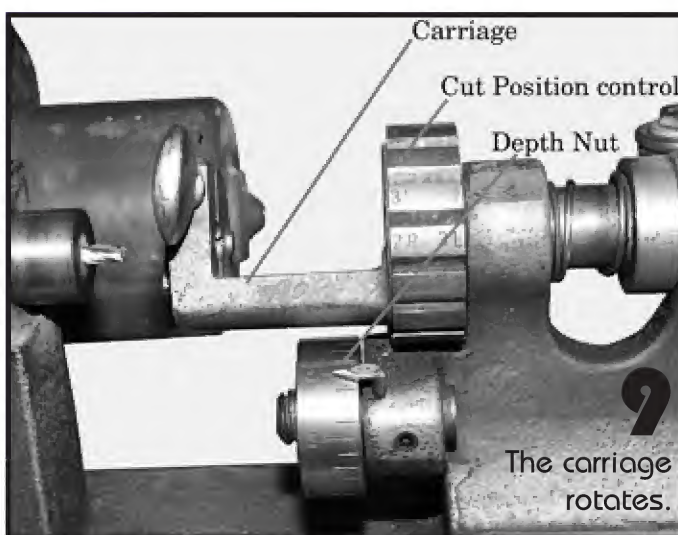
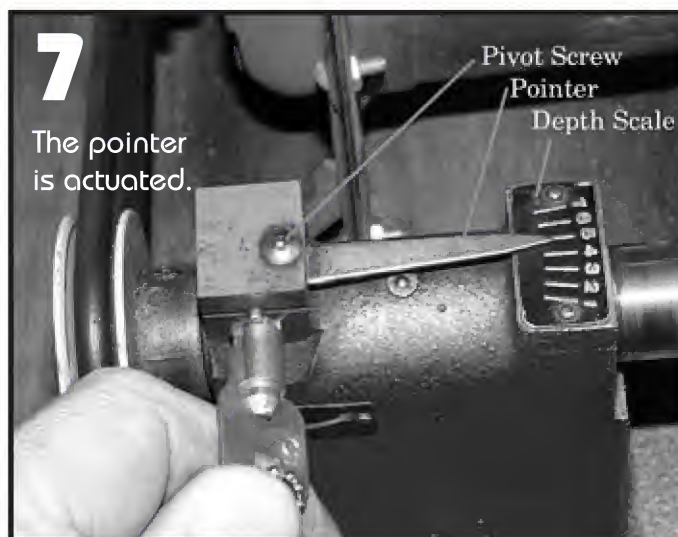
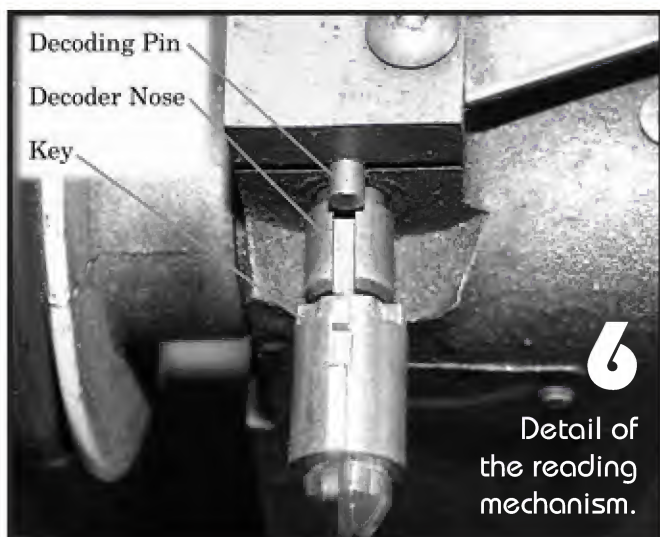


Here, under one cover you have a tremendous amount of lock servicing information. Next time you run into a problem chances are you'll find the answer in the Lock Repair Manual.

[CLICK HERE TO LEARN MORE](#)



#LRM - 1



Chicago ACE®	Fort® Gem®/Apex®	Lock Depth in inches
1	0	.016
2	1	.032
3	2	.048
4	3	.064
5	4	.080
6	5	.096
7	6	.112
8	7	.128

Chart 1.

arrangement. The key is pulled back and rotated counter-clockwise to center the next adjacent cut over the decoding pin. The key is again pushed against the machine and the cut depth read. The cuts are read in a clockwise direction around the tip.

Remember Chicago® codes read clockwise. Fort®, Gem®, Apex® codes are read counter-clockwise.

- Tubular Key Cut Depths -

Cut depth is measured from the tip of the key to the root depth of the flat bottomed milled cut. (See chart 1).

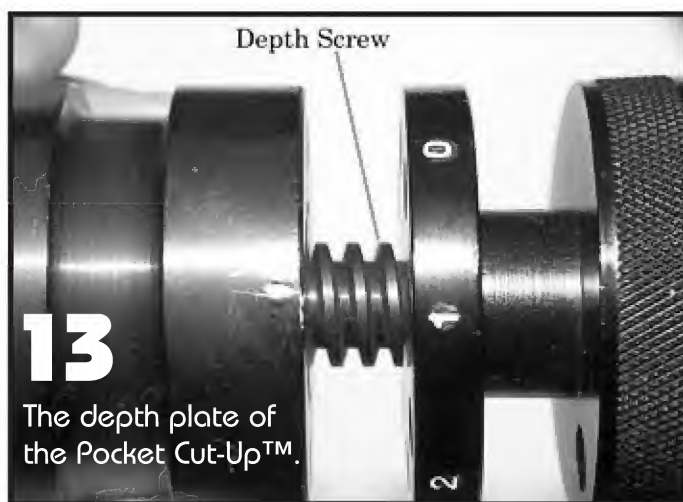
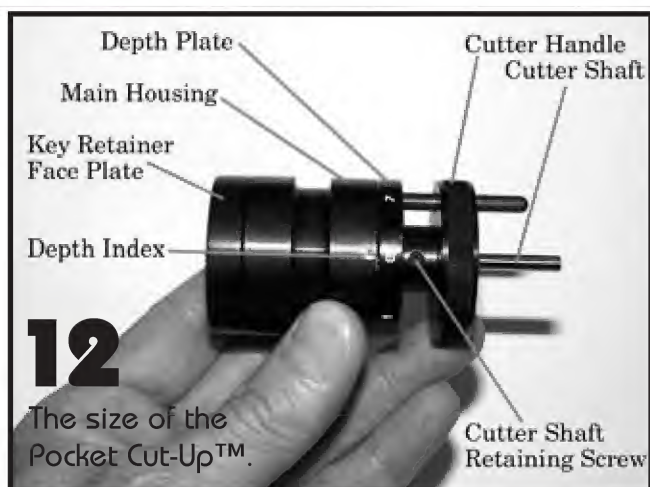
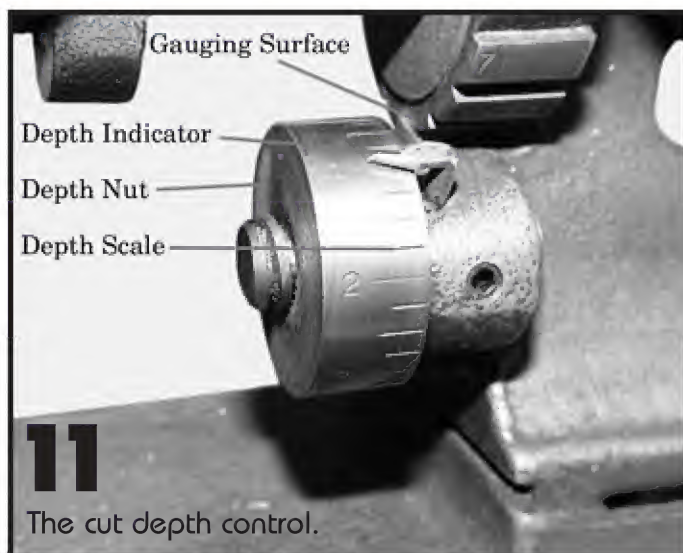
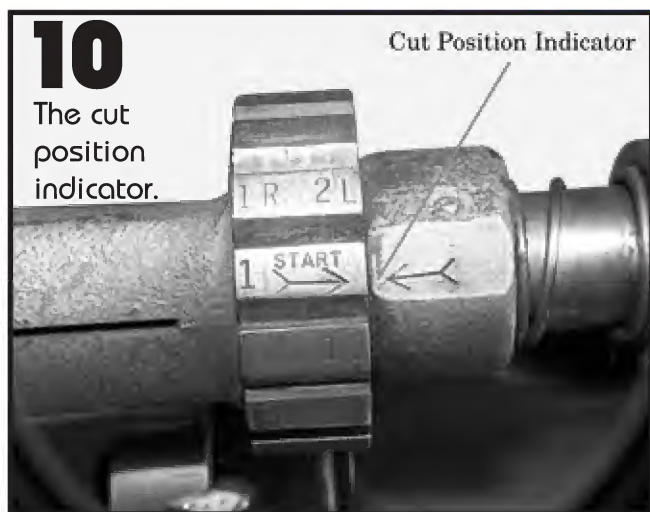
- An Early Tubular Key Machine -

Because many of the early key machines pioneered principles that are still found in current cutting equipment, we should take a look at the operation of one. Many of these key machines are still in active service. Photograph 8, shows the carriage and key holding fixture of the old Keil key machine. The key vise thumbscrew is used to close the key vise and clamp the key to be cut. The

slips over the nose of the reader and contacts a spring-loaded decoding pin. As the decoding pin is depressed by the key, it actuates a pointer, as you see in photograph 7. The pointer acts as a mechanical amplifier, to amplify the movement of the decoding pin.

The cut depth is read on the depth scale. In the photograph, we are reading a #5 cut depth. This is a simple and surprisingly accurate

Cut depth specifications for Chicago® and Fort® locks are not exactly the same. The table below shows the similarity and difference in case that you are generating a key to a code. All of the machines shown in this article are calibrated to Chicago depths. This information is not necessary if you are measuring a key, or pick, to make the key. It is, however, essential if you are making a key by code.



tubular key can only be inserted with the locating key positioned as you see in the photograph. A groove in the key vise locates the key for proper radial alignment of the cuts.

A swing away tip gauge locates the tip of the key for proper depth. After tightening the key in the key vise, the tip gauge is moved away from the tip of the key to prevent damage to the cutter or gauge. Cuts will be made in the key by the end mill. The end mill most commonly used is .187" (3/16"). A four fluted end mill is best suited for this application.

The carriage of this machine rotates as you see in *photograph 9*, to allow cuts to be made around the outside diameter of the key. To position the key properly over the cutter, the carriage has a spring detent to locate the carriage at any of the possible standard cut positions. The cut position control is labeled to indicate the proper positions for 7 pin: center, offset left, offset right, and 8 pin. The depth nut controls the depth of the cut.

Photograph 10, shows a detail of the cut position indicator. Note that we are set to "start, position #1." This would be the first cut position for a centered 7 pin configuration. If we were making a key for an "offset right" configuration, we would use the next position for our first cut labeled "1R." Offset left positions are also labeled.

Photograph 11, shows the cut depth control. The depth nut is mounted to a threaded shaft. Rotating the stop nut moves the nut left and right. By bringing the desired depth number under the depth indicator, the nut will limit travel of the carriage into the cutter. The gauging surface of the cut position indicator contacts the rear of the depth nut, to set the cut depth. Note that the depth scale is graduated to allow half and quarter depth increments. This is a unique feature of this machine.

If we pull the control handle on the end of the machine, the spring-loaded carriage will move the key into the

cutter at the selected position to make our cut. The depth nut limits forward travel of the carriage and insures that the cut is made to the desired depth.

This machine was certainly designed well. It has been cutting tubular keys in this shop for over twenty-five years. It has, however, two major drawbacks. It is definitely not portable, as we would define portability, and it requires a power source.

- The HPC Pocket Cut-Up™ -

The HPC Pocket Cut-Up™ is about as small as you can make a tubular key machine. It is made of lightweight alloy and steel. *Photograph 12*, illustrates the size of the Pocket Cut-Up™. This is truly a pocket sized tool. The cutter and key positioning post are protected from damage by the key retainer face plate when the tool is assembled as shown. The depth plate is screwed in to the "0" mark on the calibration dial. This is actually a #8

depth, in this position.

The cutter shaft extends through the cutter handle and is secured by the cutter shaft retaining screw. If the cutter is replaced, the retaining screw must be loosened. Any adjustment of the cut depth is made using the retaining screw.

The depth plate of the Pocket Cut-Up™ uses the same means of determining the cut depth that we saw in the Keil machine. *Photograph 13*, shows the depth screw. The depth screw is threaded into the main housing by means of an Acme thread. The Acme thread increases the bearing area of the lead screw and decreases the axial play in the depth plate. By increasing the bearing area, the life and accuracy of the tool is greatly increased. This is certainly a quality point for HPC.

There is no detent to hold the depth adjusting plate in place while the key is being cut. When the key retainer plate is assembled into the main housing, the long post from the key retainer faceplate passes through the main housing and into a locating hole in the depth plate. (See *photo-*

graph 14.) When a depth is selected at the depth index, a hole in the depth plate will be aligned to receive the long post. There are holes to lock the depth plate at each of the eight standard depths.

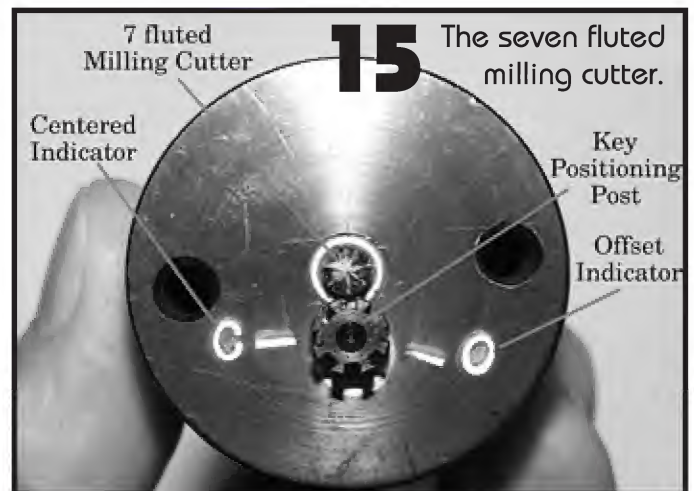
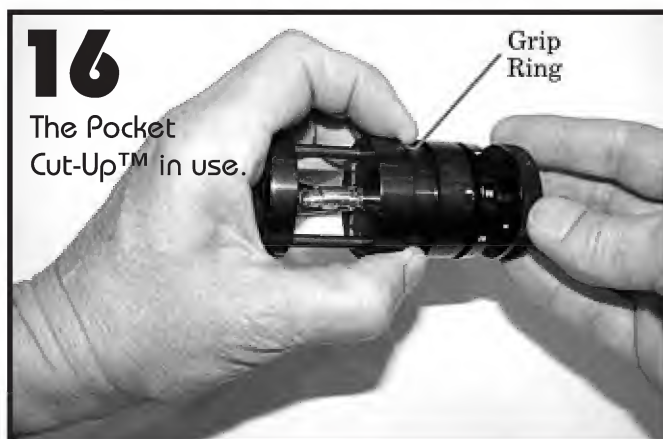
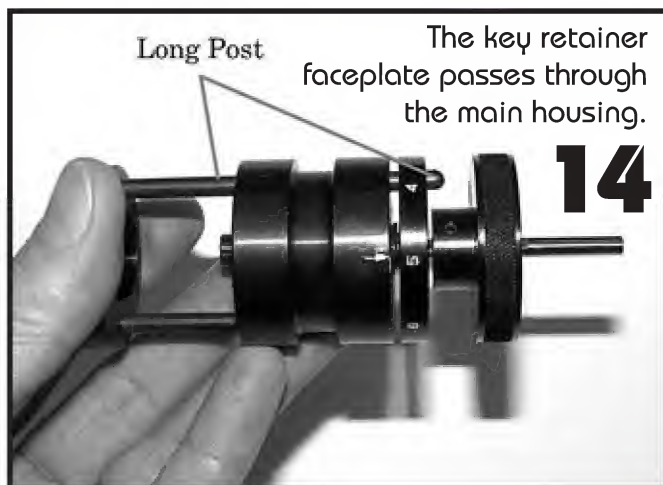
Photograph 15, shows the seven fluted milling cutter and key positioning post. The milling cutter is held in steel drill bushings to insure accuracy and long life. The key positioning post is an eight-point spline shaft. It allows placement of the key in any of eight positions for cutting. The cutter is shown set up to make a 7 pin centered key. To change to an offset configuration, it is only necessary to loosen the key positioning post set screw and using an uncut key, rotate the Post to align the locating key of the tubular key with the "O" offset index. Tighten the setscrew to hold this adjustment and cut the key.

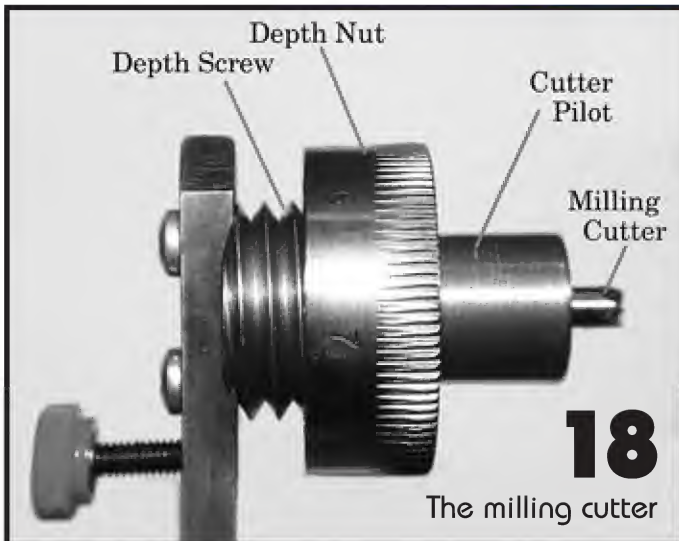
Photograph 16, shows the Pocket Cut-Up™ in use. Position the key over the key positioning post at the desired cut position. Select the

depth on the depth plate and assemble the retaining faceplate to secure the depth. Rotate the cutting handle clockwise with gentle feeding force to mill the cut into the uncut position of the key. Reset and lock the tool in place for each of the remaining cuts. It is not necessary to force the tool. The cutter can code cut a key in about three minutes. There is a grip ring on the main housing that makes the tool easy to grip while cutting. The Pocket Cut-Up™ is designed to cut standard 137A keys.

- A-1 Herty Gerty Key Machine -

The A-1 Herty Gerty is a compact hand operated tubular key cutter. As you can see in *photograph 17*, it is very compact. The calibrated adjusting nut allows us to set the cut depth on the cutter. The locking screw locks in the depth and the hand crank allows rotation of the molling cutter to create the cut in the tubular key. The depth

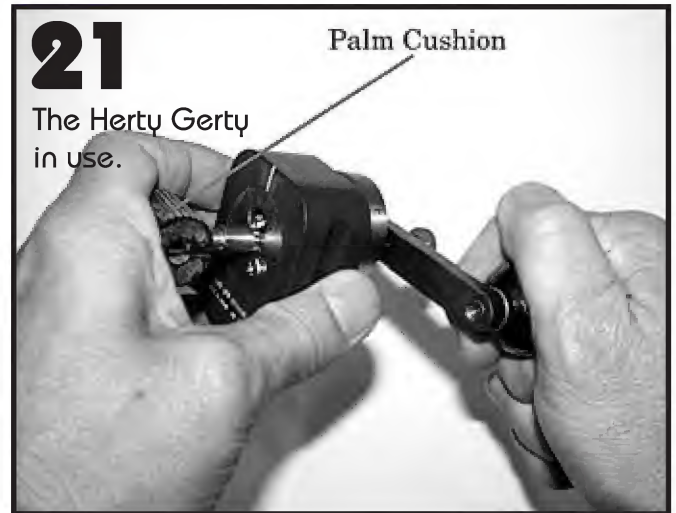




The milling cutter



Rotate the dial to the appropriate index.



The Herty Gerty in use.

is set using the same principle we have seen in the Keil and HPC machines. The Herty Gerty uses a "V" thread in the depth nut. The depth nut moves on the depth screw to set the penetration of the cutter pilot through the chassis. The milling cutter is held in the cutter pilot shaft by a setscrew. (See photograph 18.)

To adjust the depth, loosen the locking screw and rotate the depth nut to bring the desired depth under the crank pointer as you see in photograph 19. With the pointer centered over one of the depth calibrations, a depth nut locking hole will align under the locking screw. Center and tighten the locking screw to hold the depth.

To position the key for cutting, The Herty Gerty uses a special spline shaft key positioning post. This is an eight-point spline, with one spline groove missing. This prevents cutting over the locating key. The dial is the calibrated metal disc. The Key

positioning post is permanently attached to the disc. If we were cutting an offset right or left key, we would loosen the dial locking screw and rotate the dial to the appropriate index on the L-R-C indicator. (See photograph 20.)

Notice that the dial is set up to cut Fort® keys. If the locating key is used to determine the positions of the cuts, using the dial shown, the cuts will be applied to the key in a counter-clockwise direction.

In photograph 21, we see the Herty Gerty in use. The handle is turned in a clockwise direction to cut the key. The key is positioned on the dial using the locating key to determine the cut position. A handy palm cushion is used to hold the key over the key positioning post and in contact with the dial as the cutter makes the cut in the key. The Herty Gerty easily cuts a tubular key in three minutes.

The primary advantage to the portable mini key machines is being able to make a tubular key right at the lock. For some shops the mini tubular machine is sufficient for the amount of tubular work they encounter. Any of these machines will allow the locksmith to generate a tubular key to dimension either with a code or from a decoded key or pick.

For more information on the HPC Pocket Cut-Up or A-1 Herty Gerty contact:

A-1 Manufacturing
 Phone: (804) 359-9003
 Fax: (804) 359-9415
 E-mail: FMCC@EROLS.com
 Circle 308 on Rapid Reply

HPC, Inc.
 Phone: (847) 671-6280
 Fax: (847) 671-6343
 E-mail: HPC@HPCWORLD.com
 Web: www.hpcworld.com
 Circle 309 on Rapid Reply **INL**

BEGINNER'S CORNER

AAble Tubular Breaker Kit



by
**Jim
Langston**

The Breaker Kit from AAble Locksmiths has been on the market for a few years, but not many locksmiths seem to know about it. (See *photograph 1.*) This kit can be used on virtually all locks and cylinders that use tubular keys. This unique kit is not designed to cut the pins and springs within the lock, therefore if the cylinder has steel pins to prevent drilling it is not a problem.

The operational process behind the tool is to first remove the hardened core head, which takes 10 seconds with the breaker tool. (See *photograph 2.*)

The second tool in the kit is a drill guide that will guide a 5/16" drill bit down the center of the lock core. (See *photograph 3.*) The core will then become dislodged from its housing. The center core and the locking cam will slide out of the casing, opening the lock.

On cylinders, which do not have the hard head, all you will need to open is the second tool. This will guide you down the center of the core about 1 inch deep. The center will become dislodged from its housing, now rotating freely.

The Breaker Kit also works great on padlocks including those which have a hardened plate covering the cylinder. It only requires a standard drill bit, which is included in the kit, and is inexpensive to replace. The tool is made of high quality steel and is hardened.

Lets briefly cover how to remove a tubular lock from a soft drink machine.

The Breaker Kit will open Ace, Ace II, American, Unican, hard head Parker, Gem, Fort, Guard, Greenwald and most imported soft head and Ace II locks as shown in *photograph 4.*

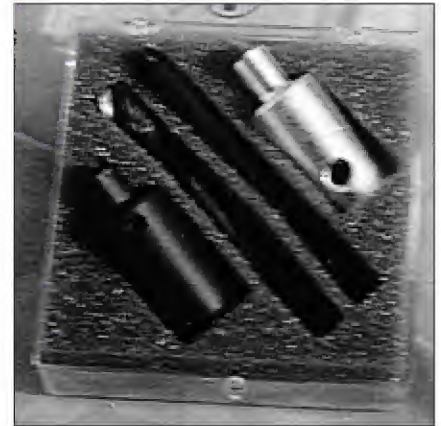
The advantage of using the Breaker Kit is because some locks use hardened pins. If you use a hole saw instead of the breaker kit to cut the pins, the hardened pins will grind the teeth off the hole saw. I know, I've tried it.

The breaker tool is positioned in the lock. (See *photograph 5.*) Once inserted turn the handle to break the hardened lock nose (center post) of the lock.

Photograph 6, shows the hardened center post of the lock removed.

Next we will use the drill guide tool and handle. The drill guide aligns a drill bit with the center of the lock. (See *Photograph 7.*)

With the drill guide in the lock, a drill bit is inserted through the drill guide and the lock core is being drilled. (See *photograph 8.*) It is recommended that you use the drill guide and drill into the lock 1/4 inch. After you have drilled approximately 1/4 inch, remove the drill



1. The Breaker Kit from AAble Locksmiths.



2. The breaker tool.



3. The drill guide tool.

guide. The reason you remove the drill guide at this point is it may clog up with the shavings. You don't need the drill guide to finish the job, all you are drilling is soft brass. In most locks the drill will go into the lock approximately 1/2 inch.

As soon as you reach the back of the lock it should automatically open. *Photograph 9*, shows the lock opened.

Once the lock is opened you can unscrew the lock and open the door. With the door open there is an E-clip that must be removed and the handle will come out of the machine. Once the handle is out of the machine you can take a small screw driver and depress the back of the push lock where the locking bolt is, then push the lock out of the housing.

From start to finish it will take approximately three minutes to open most tubular style locks.

The Breaker Kit will work on a variety of tubular lock styles and applications. The following opening instructions are for various types of locks:

To open mortise, rim cylinders, padlocks without a plate, without a hard center head:



5. The breaker tool in the lock.

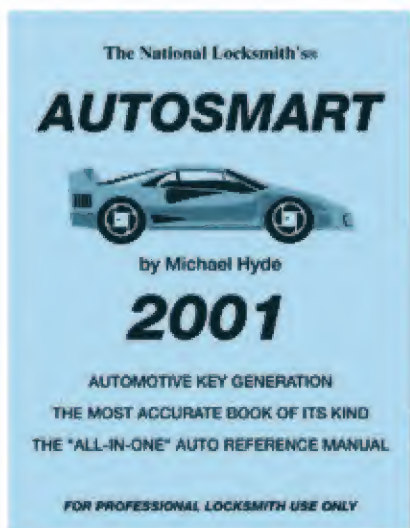


6. The hardened post of the lock removed.



7. The drill guide aligns a drill bit.

AutoSmart

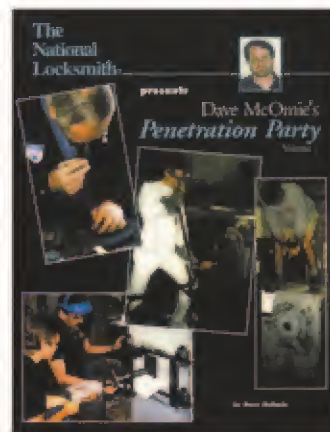


A MUST
for every
locksmith!

[CLICK HERE TO LEARN MORE](#)



Penetration Party



[CLICK HERE TO LEARN MORE](#)



#PP - 1

Drill a 1/8-inch hole in the center of the cylinder about 1/4-inch deep. Next screw a standard dent puller into the hole. Pull the cylinder plug out and use a screwdriver to open lock.

To open cam locks, screw type, washers, dryers, without a hardened center head:

Take the drill guide from the kit and screw the handle on. Insert the tool into the keyway and hold firmly. Take a 5/16-inch drill bit and drill straight through the guide hole. Once you start the hole in the cylinder you can remove guide tool and continue drilling straight in.

Using the hole you made as a guide, drill until the center core is dislodged from its housing, about 1 inch into cylinder. Now just open the locked container. The center core and the cam will slide out of its housing.

To open cam locks, screw type, washers, dryers, which have a hardened center head:

Take the breaker tool from the kit and screw the handle on. Insert the tool into keyway and apply steady slow turning pressure. The hardened head will easily break away from the center core.

Take the drill guide and screw the handle on and insert it into the keyway. Take a 5/16-inch drill bit and go straight through the guide hole. Once you start the hole you can remove the guide tool. Drill straight in until the center core is dislodged from its housing, about 1/2-inch deep. Open the container. The center core and the cam will slide out of its housing.

To open mortise, rim cylinders, padlocks without plate, but have a hardened center head:

Take the breaker tool from the kit and screw the handle on. Insert the tool into the keyway and apply slow turning pressure. The hardened head will easily break away from the center core.

Drill a 1/8-inch hole into the cylinder opening you made by removing the hardened head, which is soft brass. After that, screw a standard dent puller into that hole and just pull the cylinder plug out. Use a screwdriver to open lock.

To open padlocks which have a plate over cylinder and a hardened center head:

Take the breaker tool from the kit and screw the handle on. Insert the tool into keyway and apply slow turning pressure. The hardened head will easily break away from center core.

Take the drill guide from kit and screw the handle on. Insert the tool into keyway and hold firmly. Take a 5/16-inch drill bit and drill straight through the guide hole. Once you start the hole in the cylinder you can remove the guide tool. Continue drilling until the center core is dislodged from its housing.

Drill in and out at that point and the padlock should open from the turning pressure of the drill bit. If the core is dislodged straight and clean, you can also tap the bottom of padlock, and the core piece will slide out. Use a screwdriver to open.

To open Ace and Ace II cylinders used on vending machines and other applications:

Take the breaker tool from the kit and screw the handle on. Insert the tool into keyway and apply slow turning pressure. The hardened head will easily break away from center core. You will now see clearly a steel pin going across the center core.



8. The lock core is being drilled.



9. The lock opened.

Take a 1/8-inch drill bit and drill a hole on each end of the pin, though the brass up to the pin. The length of the pin should now be visible. Take a small sharp chisel and tap under the pin and pry it up. The pin should come out.

Take the drill guide from the kit and screw the handle on.

Insert tool into the keyway and hold firmly. Take a 5/16-inch drill bit and drill straight through the guide tool about 1/2-inch deep. The center core should now be dislodged from its housing. Open the lock.

This is just one of several clever tools that AAble Locksmith supplies. The Breaker Kit is a tool that works with amazing ease. After using it I am a believer.

For more information on the Breaker Kit contact: AAble Locksmith, 86-1997 Ave., Ozone Park, NY 11416-1318; Phone: (718) 847-1377. Circle number 279.

Point to Ponder: Middle age is when your memory is shorter, your experience longer, your stamina lower, and your forehead higher.

TNL

Gun Safes

CLICK HERE TO LEARN MORE

#GS - 1

The UGHTER Side

Senior Moments



by
**Sara
Probasco**

A couple of hours before our usual opening time, Don went to the store to pull together some loose ends from the day before. He decided not to change our front-door sign from "Closed" to "Open," thinking that would keep him from being disturbed by early-bird customers. Wrong! Like the proverbial moths to a flame, they were drawn to the first glimmer of light from Don's office, which is way in the back of our store.

At first Don tried ignoring them, but when they began banging with their fists on our plate-glass door, he relented.

"Hey man, I need some help" an aging biker and his lady shouted through the glass, their distorted faces pressed against it. As Don swung open the door, they sauntered into the store. Just outside at the curb, was parked a shiny Kawasaki motorcycle. Another senior citizen cruised up on his "hog" and parked beside the first. They were obviously traveling together. The first biker held up a badly bent key. "Goes to my gas tank," he said, "and I'm getting awful dry."

The man went on to say they had pulled into the service station across the street from our store late the night before. They had planned to fill up and continue on down the road, but when he tried to get the gas cap open, the key didn't want to turn and he wound up bending it all out of shape. Apparently, he didn't read our sign on the door advertising twenty-four hour emergency service. He decided there was nothing to do but wait until morning for our locksmith store to open.

Don straightened out the key and cut a duplicate. Inserting it into the lock, he had to wiggle it a bit to get the lock to open, so he filed it a bit here and a bit there. Still, the lock remained difficult to open.

"Aw, that'll be fine," the biker assured him. "Just so I can get it open to fill up the tank."

Don turned the key to re-lock the gas cap, and handed the man the key. "Now you try it, to be sure you can get it open," he advised.

The biker put the key into the lock and tried to turn it. He tried a bit harder. He wiggled it as Don had, but still it would not turn. His blood pressure rising, he tried to force the key to turn.

"Whoa!" Don shouted. "You're going to bend that one too, if you don't watch out." Don stepped up to demonstrate the proper way to turn the key, but it wouldn't work for him, either. "Oh, now I see the problem," he said. "The key isn't sliding all the way into the lock. No wonder you can't turn it." But try as he would, Don couldn't get the key to go all the way in, either. Apparently the tip stop that lined up the key with the wafers was being obstructed, somehow.

Finally, Don got it open again, removed the lock cylinder and cleaned it out.

"You wouldn't believe the junk that washed out of that lock," he said to me later. "But they were happy to finally be on their way to Langtry and Fort Stockton with a full tank of gas and a smooth-working lock."

It was almost closing time when another motorcycle call came in from an area campground. A pair of senior citizens from Alaska were having some problems.

"We can't get the key out of our motorcycle. Do you have tools for that sort of thing?"

"Tell me exactly what the problem seems to be," I said over the telephone.

"Well, it's just stuck," the woman said. "We've tried to get it out, but it won't budge."

"Can you drive it to our store?" I asked.

"No. We don't have any way to start it."

When Don pulled up at their campsite in his service van, he expected to find the key stuck in the ignition. However, the man was bent over the '96 Honda 1500 pulling off chrome trim like a madman, pausing now and then to shine a fading penlight down inside the framework while polluting the air with colorful language. All around him on the ground lay more pieces of trim. In fact, he had practically disassembled the cycle.

"Whatcha got?" Don asked as he reached the man's side.

"There it is, just out of reach. Can you see it? We're looking at the very end. Sure is hard to see." His light was going fast.

Don peered down where the man indicated. Four to six inches below the edge of the remaining trim he could see the tip end of the key. Then the penlight went out. Don went to his van and came back with his own light and his little handy-Jim-dandy long-handled "gotcha" grabber tool. In a few seconds he had the key out, and was on his way back to town. Before he reached civilization again, he noticed a growing image in his rear-view mirror. The Alaskan bikers had reassembled their Honda, packed up their gear, and were barreling down on him. Riding double, the couple grinned and waved heartily at Don as they passed him, gray hair billowing behind them from under their matching helmets. They quickly disappeared in their own cloud of dust.

The seniors of the world weren't through with Don yet, however. He had scarcely kicked off his shoes and settled back into his recliner after supper when the phone rang. Two elderly women and a dog were locked

out of their Pontiac. When Don arrived on the scene, one of them had a flat stick jammed down inside the driver's door, trying to get it to unlock. At her feet, a little Chihuahua dog was jumping and yipping at her every movement.

"What do you have, there?" Don asked her, indicating the makeshift tool she was using.

"Oh, it's just a stick my little doggie was chewing on," she replied. "I had to wrestle him to get it away." She paused thoughtfully as Don started working on the passenger door. "Say, if I can get the driver's door open with my stick before you get that one open, do I still have to pay you?"

Don chuckled at the absurdity of her challenge. There's no way she could open the door with that stick, he thought. Not in a million years. "No, you won't owe me a cent," he said to her.

Dutifully returning to the job, he was sliding his tool inside the passenger door when he heard "Ka-lack!" from the driver's door, followed by the unmistakable whoop and holler of success from the two women.

Later, when I asked why in the world he had made such a bargain, he replied, "I figured, any time I can't use my skill to beat a woman trying to open a car with a stick she's had to wrestle away from a puny little Chihuahua, I'd better hang it up."

"What kind of stick was it?" I asked, trying to help him find some justification for the situation.

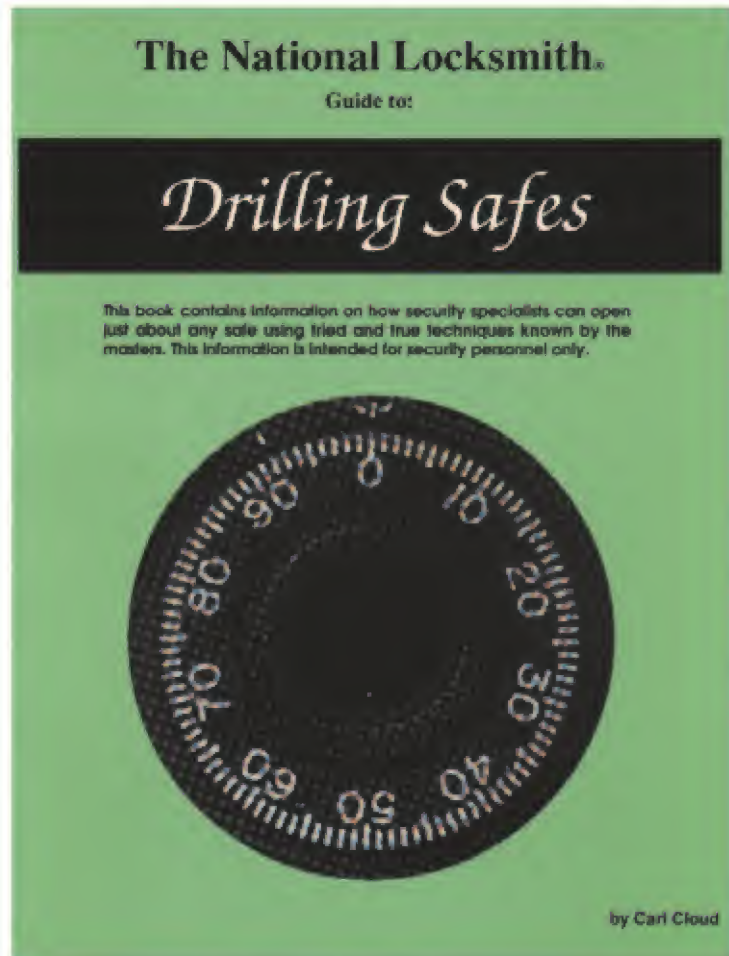
"Well now, if I knew that I'd be getting rich selling them on every street corner as the latest invention in car-opening tools, instead of wearing myself out making middle-of-the-night service calls."

Patting him on the shoulder, I said, "You need to keep in mind why you got into this business in the first place. Making money wasn't the only objective. Wasn't one of your goals to provide a needed service?"

"Can't remember," he said as he scowled and snuggled down into the covers. "Ask me tomorrow."

No doubt he was experiencing a "Senior Moment," as they say. **TRL**

Drilling Safes



One of the most expert safemen in the country, Carl Cloud has written a very important book on safe opening.

[CLICK HERE TO LEARN MORE](#)



#DS - 1

Cover that Change Key Hole



by
Dale W. Libby, CMS

Changing combinations used to be a simple and easy exercise. It was either done with a safe lock change key or by hand. That easy era is long past. With the advent of electronic combination locks featuring keypads and smart key chips, reprogramming is probably closer to the mark than just changing combinations.

This article is about pricing and changing numeric combinations on safe locks.

This commentary addresses not how to change safe lock combinations, but rather how to avoid callbacks and how I charge for changing lock numbers. Most of us already have procedures for this, but in this new millennium, here are a few points to ponder.

One of the more prevalent questions I am asked is "How much is it to change my safe combination?" I immediately respond that the cost of the combination change is between \$25.00 and \$125.00. Added to this will be a trip charge that is determined by the time of day and the distances involved. After finding out where they are located and in which town the safe or chest is

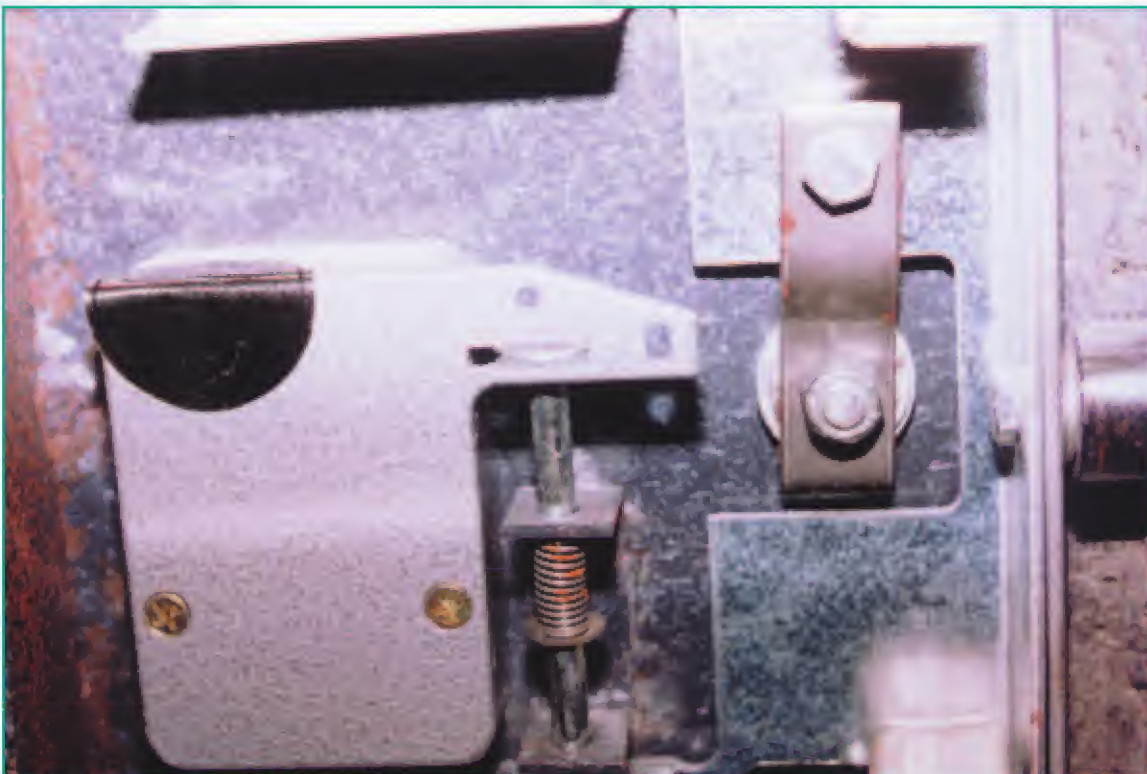
located - and if they are in a Mall - I can quote a better full price for the job.

There are many reasons why I cannot quote a fixed price over the phone. Unless this safe is one that I have regularly worked on, I will not quote a price on an unknown, unidentified and mysterious safe. The reason for this is simple. Once you change a safe combination, you are in effect putting your name on that safe, and stating that you guarantee the safe to work correctly after you modify and transform the combination.

The customer really thinks this and he is right. That is why changing a combination is a job, and is really more than sticking in a change key, dialing the old combination and then the new, and having the customer try it twice after you have set it. Today there is much, much more involved in changing a combination.

Whenever I change the combination on a new and different lock, without fail I disassemble the back of the door to check out all moving parts, including bolts and the opening handle if present. I tighten everything properly before taking off the back of the lock cover. After removing the cover and checking the relocking devices (if found), I inspect the lock for dirt or Pixie Dust.

At the minimum, I remove the spline key, unscrew the drive cam,



1. The change keyhole has a label over it.

which I clean and inspect. After removing the dial from the dial ring, I look for wear. Next, I remove one dial ring screw and use "Lock-Tite" to keep it from unscrewing and getting loose. I do the same for the other screw. If the dial needs repositioning, I do it now before everything sets up. I do this simple procedure on all new safes. This minimum procedure will definitely save a call back for a loose dial ring.

After reinstalling the dial and drive cam (making sure the dial is correctly splinned), I check the four lock case screws and "Lock-Tite" them into place. If the wheels show any sign of wear, or if they are picking up other wheels at the wrong place, I disassemble the entire wheel pack and clean it. If the wheels are turning correctly, I do not tear down the cluster.

The same method and inspection should be used on an electronic combination lock, but no disassembly of the lock case should be attempted. However an inspection of the bolts for possible gate end pressure should be performed. All parts should be tightened and adjusted for maximum performance. This is not something you do for free. The customer must pay for this. Whatever time it takes, you must charge for it.

On my invoices, I have a line titled "Agg. Factor - Nominal" This stands for Aggravation Factor, Nominal. Annoying clientele will get charged for this if they try to help.

Unless a customer really wants a specific combination, I choose a combination that uses all parts of the dial. I will have a high, midrange, and low number in the combination in no particular order. Trying to explain the forbidden zone to a client is worthless. I just use a combination I like. Here is where we, the professionals, have to get tough.

I write the combination in ink on one of my cards. I write the name of the safe, and the next months date on the card. I explain, "This card is the guarantee, not the invoice. This exact card, not a fax, not a photo copy of the card, not a Xerox of the back of the card, but this exact card is the Warrantee." Without this exact card, there is NO warrantee of work done. Period.

The reason for this is simple. If someone else works on the safe after I do, and if they change the combination, I am not liable for work done by others.

If they produce the card and I have to drill open the safe, I will determine the combination of the safe. If it does not match the original combination on the back of my card, then the customer must pay. Parts are never covered unless a new lock is installed.

As can be seen in *photograph 1*, the change keyhole has a label over it. This was installed by the factory and states that Guarantee is Void if the label is removed. The label can only be removed (and replaced) if the back of the safe is removed. Most technicians just stick the change key through the label and work on the lock. This clearly shows that the combination was changed without a lock inspection.

I am currently working on a specific label that serves many functions. I want to put it over change keyholes on the lock itself and on the outside of the safe door. The label will state that if anyone works on this safe, not from SAFE-BUSTERS or Libby Safe and Lock, all guarantees implied, implicit, or stated will be null and void. I also want a line on the label for a date and the initials of the serviceman... Me.

The customers are discouraged from changing the combination themselves. One time little Tommy and I delivered a large money chest to a bank in Chicago. They did not want us to know the new combination and they did not want us to change it. They wanted to do it so no one outside the bank would know the combination. We told them that it was not possible. We would have to set the first combination and be sure they could open it. Once they satisfied us that they could work the combination twice in a row, the sale was complete. It is too great a risk to have someone who does not know how to change a combination correctly to do it on your dime, so to speak. Especially in reference to call backs.

Many times I have been asked to teach a person to change the combination on a safe, mostly key change type locks. I flatly refuse. I am not a locksmith school or a safe lock combination changing school. I tell them there is too much that can go wrong without proper education.

Electronic safe locks offer other problems. Changing the lock numbers pose no great problems, but inspection of the bolts and inner

mechanism should not be glossed over. Again, on the card, state that if the combination is changed, the guarantee is void.

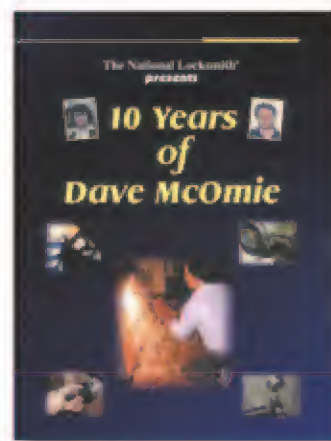
This law also applies to Ilco (Simplex) products that the customer wants. When I install an Ilco 1000 door lock, I do not leave the directions or the key for reset access. If the client is adamant, I will leave the key and instructions with my warning label. If they mess up the lock and have a neutral or unknown combination, the will pay an hours labor plus a trip charge to fix the lock.

In cases where the customer is really a pain, I state that if they tried to change the combination themselves and messed up, then a new lock is needed. If they cannot call me to change the combination, then they will suffer the consequences of their arrogant mistake.

Changing combinations is a great way to get a view of the bolt, lock, and relock positions in a safe you are not familiar with, so take notes. They may help to save time if you are called to open a similar burglarized safe.

Change combinations, take your time to do it right and prosper! **RL**

10 Years of Dave McOmie



[CLICK HERE TO LEARN MORE](#)



#DM - 10

BUSINESS BRIEFS

ROFU International Corp. Celebrates 20th Anniversary

ROFU International is celebrating its 20th anniversary as a US company. The company originated in 1933 in Switzerland and became established in California in 1980. Besides its offices in Switzerland and the United States, ROFU also has sales and warehouse operations in Canada and the United Kingdom.

For more information call: (253) 922-1828; Fax: (253) 922-1728; E-mail Julie@prodigy.net.

Ultra Hardware Forever Finish

Ultra Hardware Products, LLC, is introducing a new product line called Forever Finish. The Forever Finish product line is truly a lifetime guarantee. Forever Finish will not pit, fade, tarnish, corrode or rust. PVD is a 100% environmentally friendly manufacturing process.

For more information call: (800) 426-6379, fax (800) 858-7210, E-mail info@ultrahardware.com, Web www.ultrahardware.com.

Lockmasters, Inc. Acquisitions

Lockmasters, Inc. has acquired The Keyless Tool Company and Low Tech Products. The Keyless Tool Company developed the Keyless Garage Entry Tool. Low Tech Products is best known for their patented and unique design of impressioning pliers, desk lock installation jigs, wafer and pin gauges

For more information call: (800) 654-0637; Web: www.lockmasters.com.

SecuraKey Appoints VP of Business Development

SecuraKey has created the position of VP Business

Development to focus the company's long-term goals and develop strategic alliances. Kenneth B. Cecil has been appointed to head this new effort.

For more information call: 800-891-0020.

DynaLock Corp Appoints New Sales Representatives

DynaLock Corp. has appointed JS Associates as Sales Representatives for Contract Hardware, Locksmith and Access/Security accounts in Northern California and Northern Nevada. Their main office is in Walnut Creek, CA (925) 256-7455 with a branch office in Petaluma, CA (707) 762-3655.

For more information call (860) 582-4761, E-mail dynalock.corp@snet.net, Web www.dynalock.com.

Security Lock Distributors Carrying Von Duprin Exit Alarm Lock

Security Lock now stocks the complete line of Guard-X code compliant exit alarm locks. The formidable lock instantly identifies the emergency exit door on which it is mounted and secures the opening against unauthorized use. Its huge (2" x 1 1/2") aluminum latch case resists tampering and vandalism from inside the door. Features include a variety of finishes, non-handed, armed indicator light, impact resistant end cap and optional outside operation.

For more information call: (800) 847-5625; Fax: (800) 878-6400; E-mail: info@seclock.com; Web www.seclock.com.

ASSA Moves to Connecticut

ASSA has moved its U.S. operations from New York to

New Haven, Connecticut. Along with the move, the company has added 16 new employees in areas from customer service through production. Clas Thelin has assumed the position as president of ASSA, Inc., and Tom Demont, formerly product and government sales manager for Arrow, becomes ASSA's national sales manager.

The company is now located at 110 Sargent Drive, New Haven, CT 06534-0453; Phone: (800) 235-7482; Fax: (800) 892-3256; E-mail: info@assalock.com.

Akron Hardware Adds Folger Adam

Akron Hardware has added the Folger Adam, McKinney and Securitron product lines to the offering. For more information call: (800) 321-9602; E-mail sales@akronhardware.com.

Zero International Adds New Sales Reps

Zero has appointed two new sales agencies. Youngblood Associates, Inc.



in Matthews, NC, headed by David Youngblood in North Carolina and South Carolina. Don W. Fowler of Capital Hardware Associates, Inc. heads a team in southern Texas from Capital's headquarters in Austin and various satellite offices.

For more information call: Phone (800) 635-5335; Fax: (800) 851-0000; E-mail Zero@zerointernational.com.

Locknetics Electromagnetic Locks Pass UL 10C

Locknetics Security Engineering's entire line of

electromagnetic locking systems meets Uniform Building Code Standard 7, Section 2 (UBC7-2) (1997), as verified by passing Underwriters Laboratories, Inc. (UL) 10C positive pressure fire test. The passage of the fire test means that Locknetics has provided the first and currently the only known available electromagnetic locks that comply with the relevant Building Code.

For further information call: (860) 584-9158; Fax: (860) 584-2136; Web: www.locknetics.com.


SecuraKey Appoints Product Marketing Manager

Paul F. Chandler has joined SecuraKey as Product Marketing Manager. Mr. Chandler brings with him over 10 years of experience in security hardware distribution. His responsibilities at SecuraKey will include product marketing, technical writing, training and customer application support.

For more information call: (800) 891-0020; E-mail: mail@securakey.com, Web: www.securakey.com.

Continental Instruments Opens New Central Regional Office

Continental Instruments Corp. has opened its new Central Regional Office in Colorado. The office will be headed by Brian Fitzgerrell. Continental also has Regional Offices in California, Maryland and New York.

For more information contact Bob Weinstein at: (631) 254-0044; Web: www.cicaccess.com. 



THE CASH STATION

by Mark Daniel

LeFebure

Depository Manufacturer
LeFebure

Model #
110 Envelope Depository

Safe Manufactured by
LeFebure

Safe Model #
AR 6100 for Fujitsu ATM.

Handle Type
None, dial is utilized as a pull handle

Dial Location
7 inches down from top of door and
3 inches over from opening edge.



Number of Locking Bolts
1

Door Locking Bolt Locations
None. Only the bolt from the combination lock is used to secure the door.

Door Thickness to Bolt Center
1 inch

Door Locking to Lock Case
1/2 inch

Door Thickness to Back of Lock
1-5/8 inches



LeFebure

Lock Type

S&G 6700 series.

Lock Description

Group 2, three wheel, rear drive, key changeable combination lock

Lock Case Thickness

1-1/8 inches

Number of Wheels

3

Driver Location

Rear

Lock Handing

Left Hand (LH)

Drop-In Location

48

Forbidden Zone

0-20

Lock Opening Procedures

4xL to first number. 3xR to second number. 2xL to third number. 1xR until dial stops.

Lock Drill Point

7/8 inch out from dial center at 47.
Align wheel gates at lever fence.



Lock Relock Trigger Type

Spring loaded trigger that activates when combination lock cover is removed or punched.

Lock Relock Trigger Drill

Point: 3/4 inch right of dial center and 7/8 inches up. Grab the relock trigger arm with a hook wire and pull towards you to release.

Lock Notes

This is a right handed lock mounted left handed.

Handle Rotation

Counter-Clockwise to open.

External Relock Device Type

None

Safe Deposit Box Type

S&G single nose on lower compartment.

Safe Deposit Box Drill Point

9/16 inch towards opening edge of door and 5/8 inches up.

Safe Deposit Box Relock

Device Type

None

August 2000 • 98

New Kawasaki Key Blank

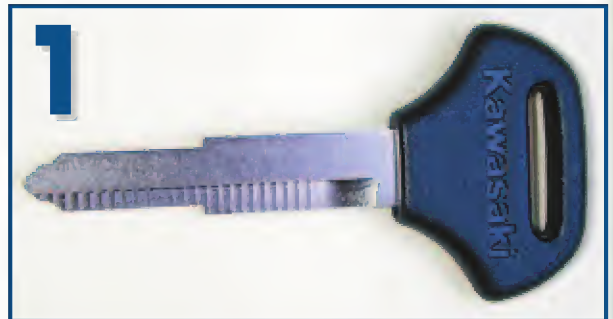


by
John Blankenship

Kawasaki is using a new key blank on some of its available at this time. The Kawasaki part number is Z5001-6000, which were used on some Kawasaki models throughout the 80's. The X103 blank was used with those codes and the new key blank is identical to the X103 from shoulder to tip. However, the new blank has a longer neck and milling, so it will fully enter the new ignition lock that is used on the new models. The X103 will operate the secondary locks on the new models but it will not operate the ignition lock.

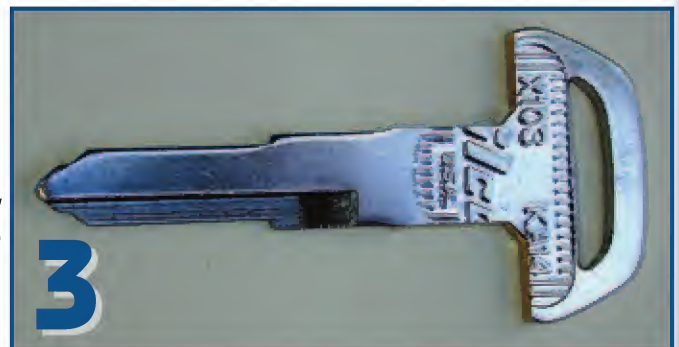
Bob Pulley, CPL of Belleville, IL deserves credit for discovering this new key blank and alerting other locksmiths by posting on TheNationalLocksmith.com automotive locksmithing forum. He was called to originate a key to a 2000 Kawasaki ZR7 motorcycle with only 8 miles on it. He found the helmet lock unlocked and used a hex wrench to remove the one bolt that secured the lock to the frame. The Z code was on the back of the helmet lock and he cut a key by code on an X103. It turned the secondary locks but would not go into the ignition far enough to turn it.

Bob ground the bow back and it would enter the ignition farther but would still not work. Then the customer produced the new key blank that he bought from the Kawasaki dealer. Bob was not certain that the ignition was the same as the other locks and did not want to cut the new blank until he knew for sure. He used a Dremel to extend the milling back on the modified X103 and found that it did work, so he cut the new blank and the customer was happy.



This is how the blank looked after I cut the bow back 1/2". Now we need to extend the milling 1/2" farther up the neck.

I was unable to find any other blanks that could be easily modified so I decided to modify an X103 like Bob did. I bought a new key blank from the Kawasaki dealer to use as a pattern blank. I clamped both blanks into the jaws backwards and lined up the shoulders with the guide and cutter. I clamped a pair of Vice-Grips onto the bow of the X103 so I could hold it steady while it was being cut. Then I duplicated the neck of the new blank onto both sides of the X103. The neck and milling on the new blank are 1/2" (12.7mm) longer than on the X103, so if you don't have a pattern blank you use another X103 if you clamp it 1/2" to the right and then duplicate the neck.





I clamped the blade of the blank in a vice and used a Dremel to extend the milling 1/2" on both sides. It isn't pretty, but it will work.



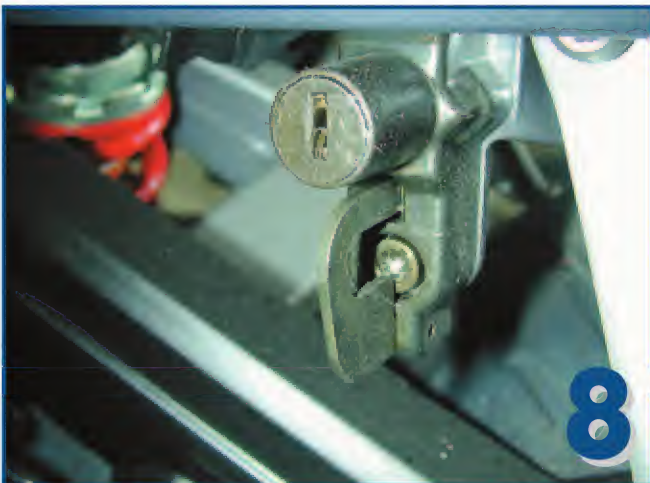
The new blank is on the left and the unmodified X103 is on the right. The modified X103 is in the center and can be used to get the customer on the road when the new blank is not available. The customer can then obtain a new blank and have the key you made duplicated onto it.



This is the ignition lock that the new key blank fits. KM-8 is on the face of the lock. This ignition lock is used on all four Kawasaki models that use the new key blank.



The ZR7 is an economically priced 738cc 4-cylinder motorcycle and should become popular. It uses the new key blank and KM-8 ignition lock.



The ZR7 helmet lock is located on the left side of the bike. You need to pick the lock and use a hex wrench to remove the one bolt that secures it to the frame. The code is on the back of this lock.



The W650 is designed to resemble the old Triumph Bonneville that was so popular in the 1960's and '70's. It uses the new key blank and KM-8 ignition lock.



The W650 helmet lock is located on the left side of the bike. You need to pick the lock and use a hex wrench to remove the one bolt that secures it to the frame. It looks like you could also use a ball-end hex wrench to remove the bolt without picking the lock. The code is most likely on the back of the lock since it is there on the ZR7 model.



The ZX12R is a serious contender for the 'world's fastest production motorcycle' title. It uses the new key blank and KM-8 ignition lock. I was unable to locate a helmet lock on this motorcycle and the seat lock is located behind plastic bodywork. It will probably be best to pick the gas cap lock and either look for a code or disassemble it to obtain the cuts.

These motorcycles are so new that all I can do at this time is take photos on the showroom floor. I will try to obtain one for an in-depth article but it may be awhile. I checked other new Kawasaki models while I was in the showroom and found that the ZX6R, ZX7R, & ZX9R models use the KM-4 ignition lock. The blank is KW15BP using codes B8001-B9000. The Vulcan model ignition locks are chrome and are mounted on the left side of the motorcycle. The blank is KW14 using codes B111111-B444444 or KW14R using codes A111111-A444444. **TNL**



The ZXR1100 is one of the 'most bang for your buck' picks by Motorcyclist magazine. It uses the new key blank and KM-8 ignition lock. The helmet lock is identical to the one on the ZR7 except it is turned sideways and mounted near the rear of the bike on the left side. The code will almost certainly be on the back of the lock.

Codes: Z5001-Z6000

Blank: Original 27008-1189; an X103 can be modified

Spacing: 1=.098, 2=.197, 3=.295, 4=.393, 5=.492, 6=.591

Depths: 1=.258, 2=.238, 3=.218, 4=.199

Card Number: CMC50

ITL Number: 259

Curtis: KA-1 cam & KA-1A carriage

Ask Dave



You asked.
He answered.
This is safe
and vault
Q&A with
an attitude.

CLICK HERE TO LEARN MORE

#AD - 1



TECHNITTIPS

YEAR-END PRIZES



Grand Prize

Silca Bravo Duplicator



1st Prize

HPC's 1200PCH
Punch Machine



2nd Prize

Mas Hamilton's
PowerLever 2000



3rd Prize

Curtis 2200 Duplicator



4th Prize

SDC Magnetic Lock,
Keypad and Exit Switch



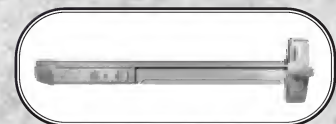
5th Prize

Securitron 12-Volt Unlatch Plug in
Trans & Touchpad Retail Value \$650



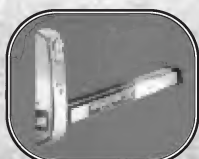
6th Prize

LaGard "SmartGard"



7th Prize

Detex Advantex



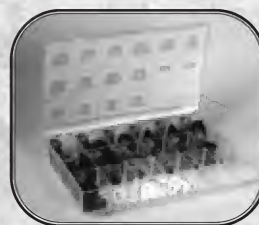
8th Prize

Arrow 400 Series Alarmed
Exit Device & S-75 Mounting
Plate Kit for Narrow Stile
Aluminum Doors



9th Prize

\$500 in BWD Products



10th Prize

\$500 in ASP Auto Locks



11th Prize

\$500 in Strattec Auto Products



12th Prize

Tech-Train "Jiffy Jack"



13th Prize

Sargent & Greenleaf 6120
Electronic Safe Lock



14th Prize

High Tech Tools
2000 Pro Set

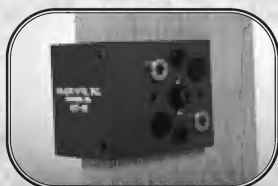


15th Prize

Slide Lock's Master "Z" Tool Set



16th Prize
 ESP Products Sampler



17th Prize
 Major Manufacturing's
 HIT-111 Drill Guide



18th Prize
 Abus Padlock's Marine
 Padlock Display (\$120 Retail)



19th Prize
 Mark Bates Associates
 Falle Pick Set



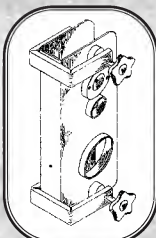
20th Prize
 Baxter JV-1 & JV-5
 Code Books



21st Prize
 Sieveking Products
 Squeeze Play



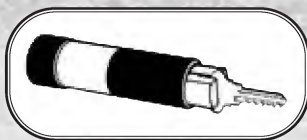
22nd Prize
 Rodann's TX 500
 RX 5990 Wireless Door
 Annunciator System



23rd Prize
 A-1 Security Manufacturing
 Installation Jig



24th Prize
 Keedex Sampler



25th Prize
 Framon
 Impressioning
 Handle



26th Prize
 Gator Tool Multi-Purpose
 Facecap Tool

These Prizes Awarded Each Month!

- **BWD Automotive Ford or GM KwiKit**
- **Wedgeco™ Key Extractor Kit**
- **Strattac Racing Jacket**
- **HPC Air Wedge™**
- **Sargent And Greenleaf 4400 Series Safe Deposit Box Lock**
- **A-1 Security Products**
- **ILCO Key Blanks (100 Blanks)**
- **Keedex "SPIN OUT" Screwdriver**
- **Tech Train Training Video**
- **Sieveking Products Gm E-Z Wheel Puller**
- **Major Manufacturing Products**
- **Slide Lock's "Z" Tool Opening Set**
- **The Sieveking Auto Key Guide**
- **Jet Key Blanks (100 Blanks)**
- **High Tech Tools**
- **LaGard Combo Guard**

Send in your tips, and win!

How To Enter

Send a tip on how to do any aspect of locksmithing. Certainly, you have a favorite way of doing something that you would like to share with other locksmiths. Write your tip down and send it to:

Jake Jakubowski, Technitips Editor,
The National Locksmith
 1533 Burgundy Parkway
 Streamwood, IL 60107-1861

Or send your tips via
 E-mail to: Natllock@aol.com

Rules & Regulations

Each tip submitted must include your full name, street address (no P.O. Box numbers), city, state, zip code, phone number, fax number or e-mail address.

Every Tip Published Wins

If your tip is published you will win one of the monthly prizes listed. At the end of the year, we choose winners from all the monthly tips published, that will be awarded one of the fabulous year end prizes. All you have to do to win is enter.

Prizes are arranged according to suggested retail price value.

**Tips Start
 on Next Page**





**BWD KWIKIT WINNER:
GM 10-Cut Key
Generation**

I've developed what I consider to be a quick and easy way to generate a key for a GM 10-cut ignition.

First determine cuts 5 through 10 from either the door or the trunk lock. Cut those depths on a blank. Now in positions 1 through 4, cut the blank down as deeply as possible. (See illustration 1.) Now break the head of the key off and insert the key into the ignition until it bottoms out.

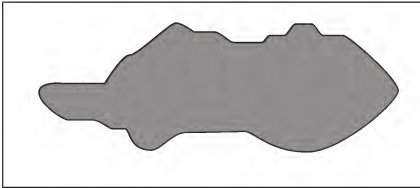


Illustration 1.

To determine the remaining cuts, remove the ears of the switch and remove the bottom shroud from the column. Press the end of the side bar with a thin probe or stiff wire and rake the four remaining wafers with a pick. You will find that the four pick very easily.

Turn the ignition towards the "On" position to hold the wafers in the picked mode. Look into the keyway and read the four remaining wafers to determine the first four cuts. Next, turn the ignition to the locked position, use forceps to remove the modified key, cut a mechanically correct key and reassemble the shroud and ears.

If for some reason you can't read the wafers to determine the cuts, first remove the battery cables. Next remove the top shroud, turn the picked ignition to the picked position, put the shift lever in reverse, turn the ignition to the start position and depress the retainer to remove the switch from the column. Now you can read the code and cut the appropriate key.



**Scott Standridge
Arkansas**

**WEDGEKO KEY EXTRACTOR
WINNER:
Employee Lock-Up Key**

I had a customer that wanted her employee's to have the ability to lock the exterior door to her business, but not the ability to unlock the door once locked. As you can see in illustration 2, I modified her lock plug so her key would both lock and unlock the door, but the employee's key would only lock the door.

Jake's Jabber...

I probably don't need to remind you, but I will anyway, this year is quickly passing by. In about six weeks or so, it's going to be fall and many of you out there that intended to send in a tip haven't as of yet!

If you need some motivation, take a look at the monthly prize list (especially the year-end prize list) and see if that doesn't just stoke your boiler a little. All you have to do is send me your tip, trick or idea on how to do something that you do everyday a little easier, faster or better. If I print your tip you get some really nice stuff the month the tip is printed and you automatically qualify for our year-end prize drawing!

Each year, I'm privileged to give away thousands of dollars worth of great stuff and all you have to do is submit a tip and have me print it. Don't worry about your spelling or syntax. Don't worry about the fact you aren't a great artist and can't draw a pretty picture to illustrate your idea. Just write it down, describe it as best you can and let us do the rest.

I also don't care whether you've been a locksmith for six months or sixty years. If you've got an idea to share, send it in. If I print it, you get a prize. It's that simple! So what are you waiting for? Send me your tip by Fax, FedEx, UPS, USPS, e-mail or dog-team; just get it here while you still have a chance at running off with a great prize this year.

Just remember to attach your full name, phone number and a physical mailing address (No P.O. Box Numbers). Especially those sending tips via e-mail.

See y'all next month.



**by Jake
Jakubowski**

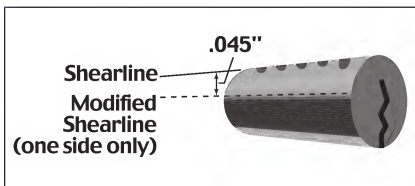


Illustration 2.

I simply used an impressioning file to remove .045 from one side of the first chamber at the shear line of the plug. The hand of the lock determines which side of the plug to modify. That is; determine whether the bolt throws with a right turn of the key or a left turn of the key and file the plug accordingly.

The bottom pin in the first chamber should be keyed to the "master" key, which will lock or unlock the door. The employee's key is cut .045 deeper (Example: MK 12345, CK 42345). The master can turn in both directions and the employee's key can only turn in one direction.

**William C. Murray
Massachusetts**



**STRATTEC WINNER:
Screwdriver Club
Opening**

I was called to open a Club® steering wheel lock which had a large round keyway. I tried to pick the

lock but there was nowhere for me to place my turning tool.

While trying to determine the best way to attack the problem, the customer's mother showed up with another Club® lock and key to see if that key would work. I examined the key and as I had surmised, the key was simply a round rod with dimples for the pins. The tip of the key was rounded, but was slotted to activate the cam. That gave me an idea.

I took my pocket screwdriver (it was a "Craftsman" with the square shaft) and bottomed the straight tip of the screwdriver in the keyway. Placing the tip along side the cam I was able to apply the necessary torque. I was going to use my pick, but I found that I was able to massage the pins in place by using the shaft of the screwdriver in a gentle circular motion.

**George Geller
New York**



**HPC WINNER:
Lever Installation Jig**

Illustration 3, shows a jig I made for locating the cross lug holes for lever locksets where the crossbore hole is already in the door.

First I cut a piece of 1/2" plywood



Illustration 3.

4-7/8" x 4-7/8" and sanded it smooth. Next I cut a 2-1/4" plug from a piece of plywood, sanded it smooth and sanded the edges down to a tight (slightly oversized) 2-1/8" diameter so it would fit snugly in pre-prepped doors. I attached this plug to the center of the board I cut.

Next I drilled a 1/4" hole dead center in the plug and board and then drilled 5/16" holes at the twelve and six o'clock position, 1-1/16" from the center. To use the tool, simply insert the plug in the door prep and use a level to square the jig to the door. Then mark your holes, remove the jig and drill your locations. It's fast, easy and economical.

*Ben Marshall
Florida*



**SARGENT &
GREENLEAF WINNER:
Lug Door Handle
Repair**

Burglars had beaten the handle off the lug door of a Mosler money chest and I was racking my brain trying to figure out where I might obtain one of these obsolete handles to repair the door.

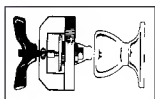
During my search for a replacement handle, I found that most industrial tool supply houses have a universal type, screw-on handle for various power tools. These handles are 4-1/2" long, 1-3/8" diameter on the large end and 1" diameter on the small end. They have a threaded brass insert to allow them to be screwed onto the appropriate sized stud and cost around five dollars.

I used one to replace the damaged handle on the Mosler money chest by drilling and tapping the lug door to accept a 3/8"-16 Allen screw with a washer as a spacer. (See illustration 4.) After liberally coating the Allen screw with red thread locking liquid and

inserting the Allen screw, I applied thread locking liquid to the handle and screwed it into place.

The black plastic handle looks good and works very well. Finding this substitute made what could have been a costly repair, simple.

*J. F. Nowaski
Michigan*



**A-1 SECURITY
PRODUCTS WINNER:
Safe Pocket Awl**

I don't know how many times I have started a job only to realize that I did not have a poke tool with me and would

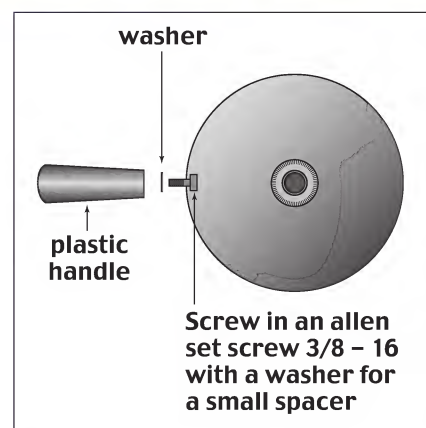
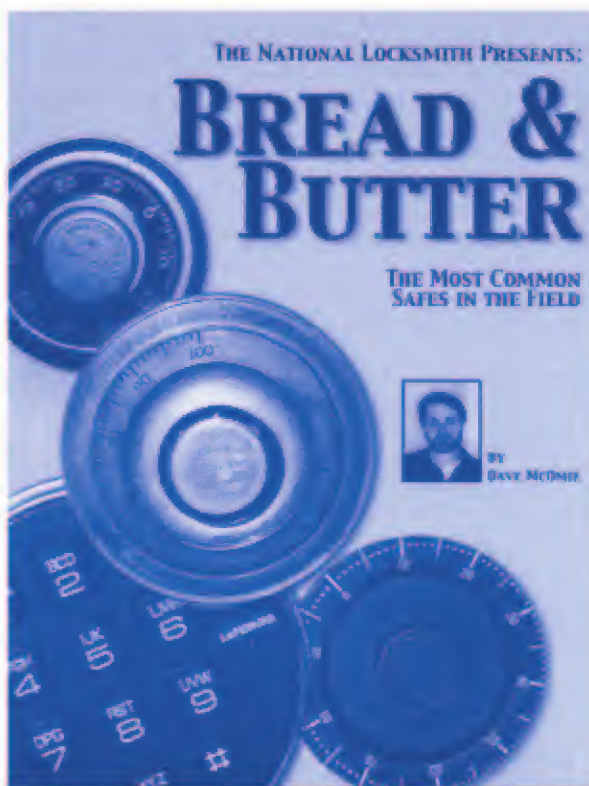


Illustration 4.

Bread & Butter



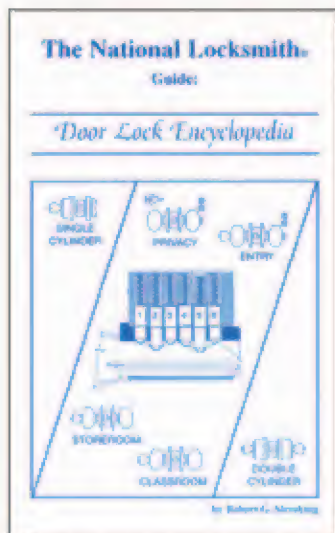
Now here is one amazing value!

CLICK HERE TO LEARN MORE



#BB - 01

Door Lock Encyclopedia



The ability to remove a lock from a door, disassemble the mechanism, and remove the lock cylinder for service is not always a simple straight-forward task.

CLICK HERE TO LEARN MORE



#DLE

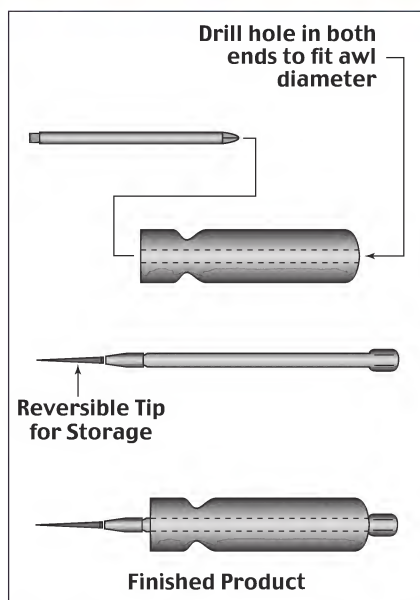


Illustration 5.

have to return to the truck to get one. I decided to come up with a way to keep a poke tool handy in my shirt pocket without getting stuck by the sharp point.

I bought a small reversible screwdriver at the local hardware store (the type that have the hollow handle and the pocket clip) and a small diameter scratch awl with a tip that reversed into the handle for storage. The scratch awl has a knurled knob on the top to secure the awl when in the storage mode.

I then drilled a hole the same diameter of the scratch awl completely through the screwdriver handle. After some modifications to the awl with my Dremel tool, I was able to push the awl through the screwdriver handle to keep it firmly in place. (See Illustration 5.)

Now I just clip my poke tool to my shirt pocket beside my pen and I'm always ready for the retainer that needs to be pushed in.

David Bastuk
Arizona



ILCO KEY BLANKS
WINNER:
Silly Putty Code Capture

I call this my "Silly Putty Trick" because Silly Putty (that odd, rubber-like substance that is forever pliable) makes an excellent medium on which to capture the stamped key codes that can be found on many foreign car door lock cylinders.

Pulling door panels and removing locks is not my favorite pastime and I find this trick saves me 50% of the work on those autos where the door lock is

not mounted in the exterior handle assembly. Locks such as those found on the Ford Probe can be very difficult to remove because of the door's interior, as well as the presence of car alarm switches attached to the lock pawl.

To make such jobs easier, I first spread the door with a wedge to create a gap. Then with a small fragment of Silly Putty on a paint mixing paddle, I can reach into the door cavity and access the lock. By pressing the putty against the lock housing where the code is present, an impression will be left on the Silly Putty.

If the lock is dirty, it's best to reach in with a rag and clean the surface of the lock before doing this.

George Robertson
Utah



KEDEX WINNER:
Flush Cutting Safe Anchors

Whenever I have to remove a safe that has been anchored to the floor, it is necessary to cut the studs off even with the floor. Unfortunately, when trying to use a grinder to accomplish this task, I can sometimes damage the floor's surface.

To prevent that sort of damage, I have a 4" x4" piece of 1/16" steel with a 1/2" hole drilled in it to fit over the stud. This allows me to grind the bolt down to within a 1/6" of the floor's surface without damaging the floor.

After using my grinder to cut all of the studs down, I use my hammer and a drift punch and punch the remainder of the studs below floor level. Now the holes can be filled with epoxy and sanded smooth.

Larry Wright, CPL
South Carolina



TECH TRAIN TRAINING
VIDEO WINNER:
Jammed 8-Cut Key Fix

The key would not turn in the ignition on a 2000 Ford Windstar, which the customer said just stopped working. This was the third Ford vehicle I have had recently with this same problem. The other two were a '99 Explorer and a '98 Explorer.

First I flooded the cylinder with WD-40 and raked the wafers while trying to turn the key to remove the ignition. If that doesn't work, I use a pair of ViseGrips(and grip the base of the ignition facecap. While turning the key, I simultaneously apply light turning pressure to the Vice-Grips. This forces

the cylinder to turn so I can remove the cylinder without having to drilling it.

After I remove the cylinder, I proceed to strip it down and recode it to the original key.

I then have to file the sidebar a little because there will be a burr on it from when I forced the cylinder to turn and broke the sidebar through. Apparently, this is why it jams in the first place. It seems a corner of the sidebar gets stuck not allowing the proper key to work.

The entire job should take no longer than twenty or thirty minutes.

Joey Panico
New York

Editor's Note: Jerry, thanks for the tip, however, since you had to force the lock to accomplish your repair and since the lock had already malfunctioned once, I think I would recommend replacing the ignition cylinder and key the new cylinder to the existing key. I would be concerned that after the cylinder failed originally and then you forced it to turn for removal, that it would be prone to future problems. A new cylinder would, most likely solve that problem.



SIEVEKING PRODUCTS
GM E-Z WHEEL
PULLER WINNER:
**Camero Clip
Removal Tool**

Illustration 6, shows a tool that I made for removing the clips on Camero door locks. It works by placing the beveled end on the clip and tightening the thumbscrew at the other end.

To make the tool, I used two pieces of 5/16" square stock, 12" long. As you can see in the illustration, I beveled one piece of stock from 3/16" thick at the end on an angle to 0" about 1-3/4" from the end.

I drilled three 3/16" holes (in both pieces) centered at 2-1/2", 6" and 10" and cut a cross slot over the hole at 10" (on the nonbeveled piece) to accommodate a square nut which I soldered in (you could use MarineTex or JB Weld). In the 2-1/2" hole location I peened a 13/16" long bolt and in the 6" hole location I peened a 1" bolt.

On the square stock with the bevel, I

wallowed out the holes at the 2-1/2" and 6" locations until they were egg-shaped, which gives the tool the action needed to grip the clip.

At the 10" hole location where I soldered the square nut, I inserted a bolt with a thumb piece on it.

Now simply insert the tool in the door well, slide it over the clip and tighten the thumb screw which forces the beveled end of the tool to grip the clip. Once tightened, simply pull up on the tool and the clip comes with it.

Thomas B. Sudduth
Washington

Editor's Note: Tom, I can see the value of such a tool, but for those who don't want to construct it, Sears carries a 14" long curved tip needle-nosed pliers that will also work. I put my long needle-nosed pliers to good use on a regular basis for removing clips from Cameros and Firebirds.

Major
MANUFACTURING, INC.

MAJOR
MANUFACTURING
PRODUCTS
WINNER:
Epoxy Stop Block

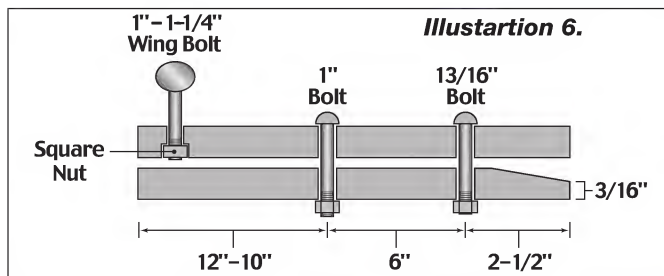
Most plumbing supply houses and home centers (in the plumbing department) have sticks of two-part epoxy that no locksmith should be without. The material has a white outer layer and a gray inner core.

I recently worked on a door that was slam latching. That is, the anti-shim detent was catching behind the edge of the strike plate because the door and frame had become somewhat warped.

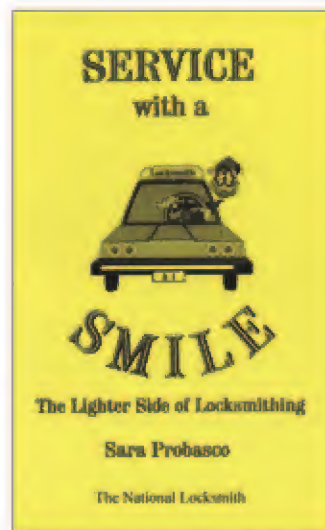
To solve this problem on this particular door, I cut off a portion of the epoxy stick, kneaded it until it turned a uniform gray. Then I molded it into an oblong piece of roughly square material about two inches long and a half inch on each side.

Near the top of the door frame, I drilled two 3/16" holes in the metal frame (for the epoxy to grip to), put my "stop" over the holes and closed the door on the epoxy. I gently pushed the door inward until the latch engaged but the anti-shim detent was resting against the strike rather than behind it.

I checked the stop block to make sure it was properly shaped and use a pocketknife to remove any excess epoxy. Then it is simply a matter of waiting for the epoxy



Service with a Smile



To tickle the funnybone
of anyone in a service
oriented business.

CLICK HERE TO LEARN MORE



#SWS

to set (about fifteen minutes), trying the door to make sure it latched properly.

I also use the epoxy to fill in stripped screw holes, fill holes left by hardware retrofits and a dozen other quick fixes. I think it's great stuff.

*Pete Gamble
North Carolina*



**SLIDELOCK'S "Z" TOOL
OPENING SET WINNER:
Bright Key Idea**

I have been plagued with keys in the van that are not often used turning black from rubbing on each other. I find it

embarrassing to hand a customer tarnished, ugly keys.

To solve the problem I found a small can with a plastic snap-on lid and glued it down to my workbench in the van. Then I filled it 1/2 full of RealLemon juice concentrate (about \$1.50 for 8 oz.).

Now when I have a tarnished key, I dip the dirty key in the RealLemon for 5-10 seconds, wipe it with a coarse rag and presto: a bright, shiny key I can be proud to hand to my customer.

*Stan Moffett
Arizona*



**THE SIEVEKING AUTO
KEY GUIDE WINNER:
Blended Brand
Keying**

During my years as a locksmith, I can't recall how many times I was asked to rekey KW1 compatible locks alike. Individual customers would buy an off-shore knock-off and want their other locks rekeyed to the new key. Or there is the apartment complex that wants a master key system and they have Kwikset, Weslock, Defiant and a half-dozen other locks on the doors - all with a KW1 keyway.

Although the depths is often close among the various brands, the spacing is another story. Keying (especially with a master key system) on the ramps always presented its own special set of problems. Add in wear factors and a .023 master wafer for a Kwikset could easily "float", bind or allow unauthorized keys to work the locks.

To resolve the problems associated with blended brand keying, I devised what I call the Ultimate Key Set. This set allowed me to use .030 master pin increments, ten (0-9) depths and - with the modified spacing - assured me that all of the pins would rest on the flats of the key and not on the ramps.

The depths are comparable to Schlage (with the exception of a number two depth, which in this case is .195.) The five spaces and ten depths also permits you a greater number of possible changes than would be available with standard Kwikset depths and spacings.

Note that the spacings are widened out with the last space running off the end of the blank. The finished key may look strange but it works.

Spacings and depths for the ultimate KW1 blended brand key set.

Spaces:

1 = .230-.275, 2 = .385-.427, 3 = .543-.590, 4 = .693-.750, 5 = .838-off tip of key.

Depths:

0 = .332, 1 = .317, 2 = .302, 3 = .287, 4 = .272, 5 = .257, 6 = .242, 7 = .227, 8 = .212, 9 = .197

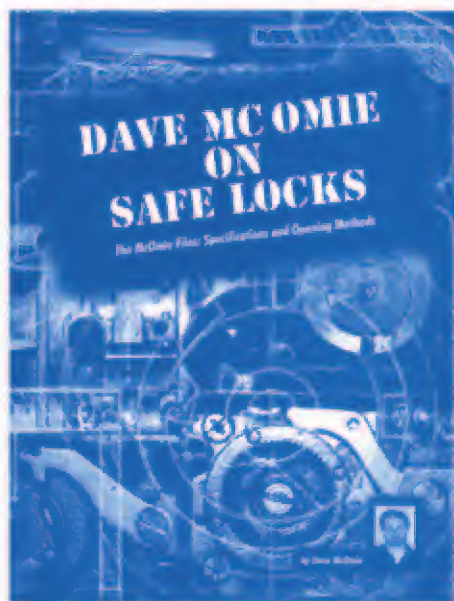
*Judy Baxter
California*



**JET KEY BLANKS
WINNER:
Ford 10-Cut Tryout
Key**

On my try-out key set, I use an electric engraving tool to mark the bittings of each key on the bow. For example if the biting is: 134354. That's

Dave McOmie on Safe Locks



Almost 300 pages of information, photographs and illustrations give you every scrap of information about a huge variety of safe locks.

CLICK HERE TO LEARN MORE

#DMSL - 1

what I engrave on the bow.

When I need to originate a key, I first use an EEZ reader to attain the door bittings. When I have the door bittings I simply go to the right batch of try-out keys and when I find the one that operates the ignition, I look at the bow of the key and plug the engraved number into my clipper or Framon cutter.

I find this to be fast, easy and accurate. It eliminates the need to refer to charts. After taking the time to engrave the numbers on the blades of the key, the system saves me a lot of time in the field.

*LeRoy Gramza
Michigan*



HIGH TECH TOOLS
WINNER:
**Schlage Mortise
Cylinder Bypass**

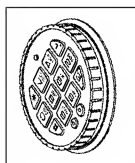
Someone jammed a key in the Schlage Primus Mortise cylinder and after trying every trick I could think of, I was unable to remove the key. I didn't want to drill the cylinder as I was hoping I would be able to get the door open, remove the cylinder, remove the broken key and restore the cylinder to service. As it turned out, I was wrong on all counts.

What I decided to do to get the door open was measure down from the center of the mortise cylinder 1-1/8". Next, I simply drilled a 3/16" hole through the escutcheon plate and flipped the thumb turn actuator with a screwdriver. That entire process took about 30 seconds.

After opening the door, I was able to remove the outside lever and escutcheon to repair the hole. The cylinder was beyond saving so I had to replace it anyway.

After opening the door in this manner, I realized that most full mortise locks can be opened in a similar manner if one cannot pick the cylinder.

*Dennis Gillette
Illinois*



LAGARD WINNER:
**Laser Pointer
Manipulation Aid**

Here's a way to eliminate the difficulties associated with reading the small variations in the drop-in when manipulating a safe dial.

I first cut the small mirror from a dental mirror. After determining the drop-in position of the lock I hot glue the mirror to the dial nose, 90° from the drop-in point. Depending on the location

of the safe and the area I'm working in, I may glue the mirror 90° to the left, or right of drop-in.

Using a pen-type laser pointer mounted on an old speaker magnet (so it can be adjusted to the proper position), I place the pointer on the door of the safe so the laser shines on the mirror.

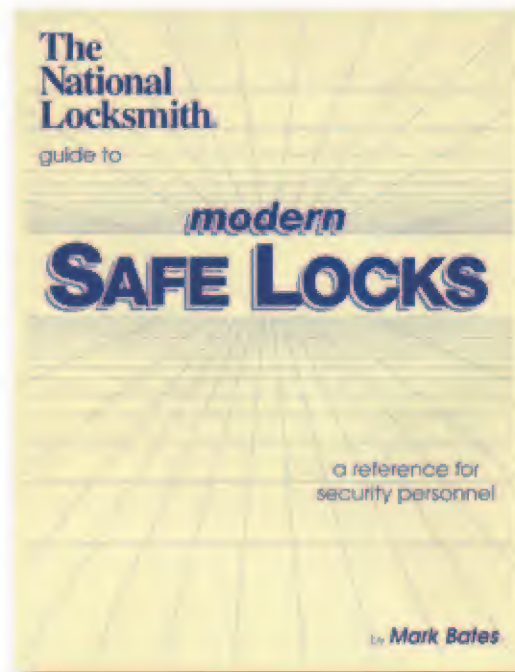
Next, I place a piece of cardboard or white paper (as a reader for the laser that the mirror reflects) on the wall next to the safe. I make a mark on the 'reader' as a reference point and take my readings from the left side of the drop-in. It works great!

I found that you can make the manipulation calibrations as large as you want just by moving the 'reader' farther away from the safe.

*Wade Bovender
North Carolina*

Editor's Note: Wade originally posted this idea on the TNL forum. Dave McOmie called the idea "clever" and said when he used it, he posted his 'reader' on a wall about twenty feet from the safe and was able to get indications of six inches or more on locks that were supposed to have very tight tolerances. **TNL**

Modern Safe Locks



You always wanted to make money
servicing safes?

CLICK HERE TO LEARN MORE



#MSL - 1

SELLING SECURITY

by Ted Tate

Successful Networking

A sales consulting client recently asked me what my favorite way of initiating new sales was. Without a moments hesitation I answered, "Networking."

When I was operating my own company, we developed literally dozens of various creative tactics to network. The reason we kept doing it was that, to some degree, they all worked!

Networking with your friends is only the tip of the iceberg. You can network with friends of your friends, police officials, fire officials, customers, prospects, and even people who purchased from a competitor! For creative thinkers, the list is endless.

I felt that every sales person in my company (and this means you, even if you think you are only a service technician) should network with as many people as possible, including their own circle of friends. When I interviewed new hires I would specifically tell them that two of my companies selling tactics were cold calls and networking with everybody we knew, including friends.

You'll find that there are a certain percentage of people who will either flatly refuse or say they will and then keep finding excuses not to do it. Almost without exception I would later find out these were also poor sales people with low sales volume and lots of excuses why.

There are several causes. Two of the biggies (I later discovered) why they didn't want to contact friends were:

A. They didn't really believe in selling security and had taken a job with me out of desperation, expecting not to be here very long.

B. They secretly feared calling on people they knew because they had no confidence in themselves and were afraid of being rejected by their friends.


I personally would never hire people with this attitude again. To me, networking is a critical issue to success in selling anything.

I know how difficult it is to find quality people. Sometimes when you've interviewed until you're exhausted and still have not found the person you hoped to hire, temptation sets in. You find yourself willing to settle for the first warm body willing to fill the position.

If you feel you must, then do it. If you have any choice at all, I always suggest looking a little harder for the right candidate. The one who is self-confident; the one who looks forward to not only servicing security hardware, but also selling as an exciting challenge. The one with a high energy level.

You can always teach someone product knowledge. You can show someone how to properly sell and service products. However, I have yet to discover a way to teach someone self-confidence that lasts more than 24-hours.

Good luck and good selling!

Ted Tate was in the alarm industry nearly eighteen years. He now presents in-house business training programs and is a nationally known trainer and author. For additional free selling tips visit his web site: www.trainingexpert.com 



KEY CODES

BMW Series

BMW BH010009-BH241009, Part 2

Manufacturer: BMW

Code Series: BH010009 - BH241009

Key Blanks:

Boerkey: 1458PS

CEA: BM2P

Errebi: HF48P8

Fuki: MT-4

Ilco: S7BW-P

Ilco EZ: S7BW-P

JMA: BM5P

Kraga: AP196

Lotus: HF155S

Orion: S7BWP

RR: XPHF116

R Clover: C-5

Silca: HU58AP

Number of Cuts: 12, six on either side.

M.A.C.S.: 2

Key Gauged: Shoulder

Center of First Cut: Side A: .183 Side B: .228

Cut to Cut Spacings: .128

Cut Depth Increments: .024

Notes: Requires a side cutting milling machine to produce key.

Spacings:

A Side

1 - .183

2 - .311

3 - .439

4 - .567

5 - .695

6 - .823

Depths:

1 = .276

2 = .252

3 = .228

4 = .205

HPC 1200CMB

Code Card: N/A

Jaw: N/A

Cutter: N/A

Gauge From:

B Side

.228

.356

.484

.612

.740

.868



HPC 1200PCH (Punch):

PCH Card: N/A

Punch: N/A

Jaw: N/A

Silca UnoCode

Card Number: N/A

HPC CodeMax

DSD #: N/A

Jaw: N/A

Cutter: N/A

Curtis No. 15 Code Cutter:

Cam-Set: N/A

Carriage: N/A

Framon #2:

Cuts Start at: N/A

Spacing: N/A

Block #: N/A

Depth Increments: N/A

Cutter: N/A

Key Clamping Info: N/A

A-1 Pack-A-Punch

Quick Change Kit: N/A

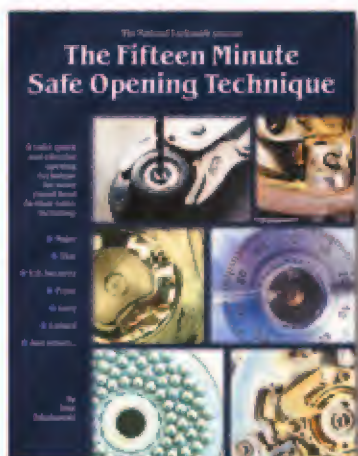
Punch: N/A

Die: N/A

ITL 9000 & 950

Manufacturer ID: N/A

15 Minute Safe Opening



This book deals exclusively with round head lift out doors. Shows five ways to open a Major; three ways to find the Dog Pin on a Major; four ways to open a Star; four ways to open a LaGard style round head.

CLICK HERE TO LEARN MORE

#JJ - 1

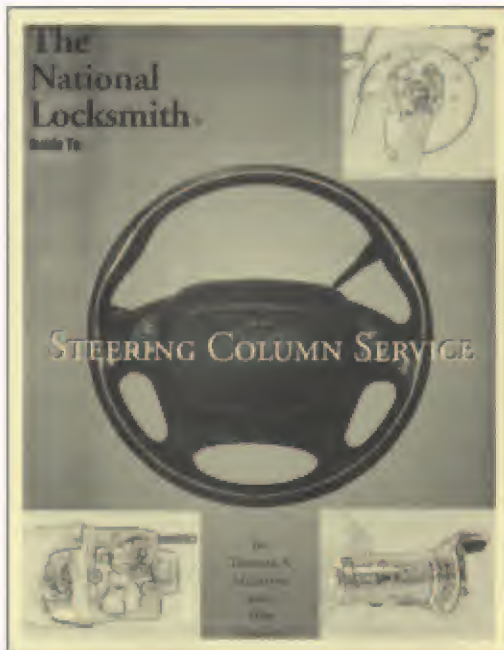
BH020501 324433-431221
BH020502 243233-113321
BH020503 442433-113421
BH020504 444433-123121
BH020505 343133-111321
BH020506 122133-444321
BH020507 424233-311321
BH020508 332133-244221
BH020509 243233-134421
BH020510 442433-132321
BH020511 211333-343221
BH020512 244333-312221
BH020513 123133-224221
BH020514 434433-121221
BH020515 234433-431221
BH020516 112333-432121
BH020517 424433-231121
BH020518 242133-334221
BH020519 434333-312321
BH020520 413133-412121
BH020521 344233-311321
BH020522 243133-234221
BH020523 431133-443321
BH020524 334233-412221
BH020525 213133-433421
BH020526 411133-424221
BH020527 324333-111221
BH020528 344333-112121
BH020529 132133-434321
BH020530 422133-334221
BH020531 343133-224221
BH020532 244333-134221
BH020533 412233-442421
BH020534 342133-123321
BH020535 124433-131121
BH020536 132433-211321

BH020537 442133-113321
BH020538 244233-412221
BH020539 113333-433121
BH020540 434233-213221
BH020541 313133-224321
BH020542 131133-234421
BH020543 322133-324421
BH020544 342133-334221
BH020545 211333-342121
BH020546 442433-431121
BH020547 334433-431121
BH020548 212333-442121
BH020549 134433-321121
BH020550 312333-413221
BH020551 113133-444321
BH020552 211133-134221
BH020553 434233-311121
BH020554 311133-342221
BH020555 211233-244321
BH020556 413133-443121
BH020557 312133-442221
BH020558 223133-124221
BH020559 412133-134321
BH020560 443333-113221
BH020561 313133-124421
BH020562 112433-442121
BH020563 431333-242421
BH020564 324333-211121
BH020565 243333-123321
BH020566 442233-121321
BH020567 234433-221321
BH020568 221133-324221
BH020569 122433-131121
BH020570 343433-411121
BH020571 213133-443321
BH020572 112133-413421

BMW Series

BMW BH010009-BH241009, Part 2

BH020573	443233-134421	BH020604	213433-423221	BH020635	413433-432421	BH020666	312133-224421
BH020574	221133-343321	BH020605	113433-331121	BH020636	311333-431121	BH020667	244233-112321
BH020575	413433-331221	BH020606	334333-312221	BH020637	231133-342121	BH020668	413233-412221
BH020576	433133-334221	BH020607	112433-432421	BH020638	422433-321121	BH020669	344233-312221
BH020577	324233-313321	BH020608	122433-421321	BH020639	212433-442421	BH020670	111333-443421
BH020578	224433-231121	BH020609	413433-321321	BH020640	232133-434221	BH020671	313333-442121
BH020579	424333-413421	BH020610	333433-221121	BH020641	112133-432321	BH020672	332433-431121
BH020580	313133-442321	BH020611	242433-133221	BH020642	423433-231221	BH020673	212133-442121
BH020581	213433-413121	BH020612	412333-432421	BH020643	344233-131121	BH020674	133433-321221
BH020582	432133-344421	BH020613	313233-421121	BH020644	243233-111121	BH020675	442433-133221
BH020583	234333-411121	BH020614	121133-443321	BH020645	442133-334421	BH020676	344233-113121
BH020584	322433-131321	BH020615	334333-412321	BH020646	231333-444421	BH020677	133133-434221
BH020585	113233-443121	BH020616	423433-121221	BH020647	413233-443421	BH020678	331233-444421
BH020586	444233-213121	BH020617	221333-444321	BH020648	431333-442321	BH020679	242133-131121
BH020587	321233-243421	BH020618	113433-423121	BH020649	334233-411121	BH020680	211333-243121
BH020588	244333-124221	BH020619	411133-244221	BH020650	213433-432221	BH020681	413333-442421
BH020589	413433-424321	BH020620	342433-131321	BH020651	121233-343121	BH020682	311133-444321
BH020590	332433-121121	BH020621	242133-111321	BH020652	444233-124321	BH020683	242133-344321
BH020591	433133-424321	BH020622	434333-112121	BH020653	343333-111121	BH020684	134233-211321
BH020592	133133-124221	BH020623	211133-224221	BH020654	444333-411221	BH020685	442233-113421
BH020593	344433-431221	BH020624	231233-244321	BH020655	324233-213421	BH020686	223433-221321
BH020594	223133-424321	BH020625	432433-421121	BH020656	342433-221321	BH020687	412133-224321
BH020595	112333-421321	BH020626	322433-431221	BH020657	244233-134221	BH020688	431233-242321
BH020596	411133-224221	BH020627	212133-432221	BH020658	412133-442121	BH020689	312133-244421
BH020597	344233-121221	BH020628	124333-313221	BH020659	312433-432221	BH020690	243233-123221
BH020598	112133-234321	BH020629	443333-123121	BH020660	244433-312121	BH020691	412333-422121
BH020599	333133-244321	BH020630	244333-213421	BH020661	124433-221121	BH020692	342133-334421
BH020600	321233-343121	BH020631	431133-224221	BH020662	312433-321121	BH020693	211133-343221
BH020601	231133-224221	BH020632	412133-344421	BH020663	112433-413121	BH020694	442433-211121
BH020602	421233-443121	BH020633	331333-244221	BH020664	113133-433121	BH020695	213233-424321
BH020603	324233-411221	BH020634	243433-133121	BH020665	434333-212221	BH020696	213433-442121



GM Steering Column Course

Comes complete with take-home test so you can become certified on GM steering column service! Authoritative training on every domestic GM column from 1967 to 1995.

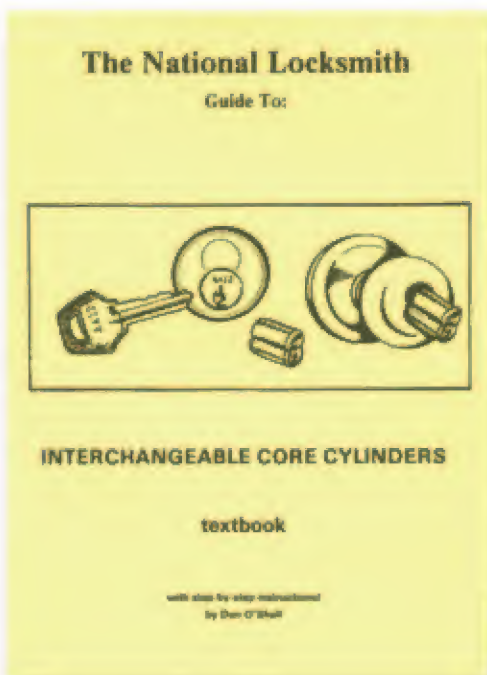
[CLICK HERE TO LEARN MORE](#)

#GM - 2

BMW Series

BMW BH010009-BH241009, Part 2

BH020697	112133-412321	BH020728	313333-444321	BH020759	413133-413221	BH020790	311233-442221
BH020698	443433-133121	BH020729	213233-423221	BH020760	413333-432121	BH020791	224333-111121
BH020699	343133-121221	BH020730	112433-331221	BH020761	313433-424221	BH020792	244333-111121
BH020700	213133-134221	BH020731	442133-123421	BH020762	233133-334421	BH020793	413233-411321
BH020701	434333-311221	BH020732	324433-131121	BH020763	111133-243221	BH020794	344233-311121
BH020702	224333-412121	BH020733	113333-443221	BH020764	423133-124421	BH020795	243433-231221
BH020703	412433-432421	BH020734	321133-424421	BH020765	222133-444421	BH020796	431133-443121
BH020704	424233-413421	BH020735	243433-111121	BH020766	411333-442421	BH020797	334333-411221
BH020705	312433-444221	BH020736	242333-133121	BH020767	344333-113421	BH020798	243133-122221
BH020706	213233-413121	BH020737	412233-432121	BH020768	342333-134221	BH020799	444333-111121
BH020707	131133-242121	BH020738	312133-424421	BH020769	242433-113321	BH020800	442333-133121
BH020708	443433-113121	BH020739	221333-344421	BH020770	442433-331321	BH020801	344233-112421
BH020709	312133-134221	BH020740	134433-121121	BH020771	333133-324221	BH020802	132433-431321
BH020710	423133-434221	BH020741	411133-124321	BH020772	231333-244421	BH020803	422433-331221
BH020711	342233-132221	BH020742	243233-132421	BH020773	432133-424321	BH020804	343433-221221
BH020712	321133-243121	BH020743	442133-131121	BH020774	344333-133221	BH020805	244233-134421
BH020713	244233-124221	BH020744	411233-243421	BH020775	134233-212421	BH020806	443233-132421
BH020714	413333-424221	BH020745	342233-131321	BH020776	121333-342321	BH020807	224433-321121
BH020715	313133-413321	BH020746	233133-134421	BH020777	444333-123421	BH020808	244433-331221
BH020716	223433-321221	BH020747	444333-311321	BH020778	342433-113321	BH020809	132433-211121
BH020717	122133-134321	BH020748	321333-343221	BH020779	121333-444421	BH020810	442133-113121
BH020718	334333-211221	BH020749	233433-221221	BH020780	424233-311221	BH020811	244333-411221
BH020719	121133-324321	BH020750	422133-224421	BH020781	331333-244421	BH020812	113233-433421
BH020720	111233-424221	BH020751	244233-313421	BH020782	134233-312121	BH020813	434433-212121
BH020721	444233-134321	BH020752	212333-431121	BH020783	342133-344221	BH020814	212433-413221
BH020722	343333-124221	BH020753	124333-312321	BH020784	312233-432421	BH020815	431133-342321
BH020723	224433-131221	BH020754	443133-123321	BH020785	244233-312421	BH020816	412433-421321
BH020724	434433-331121	BH020755	332433-131221	BH020786	123433-221221	BH020817	342433-331321
BH020725	324333-313221	BH020756	123433-421221	BH020787	433133-124321	BH020818	211233-342421
BH020726	113133-422121	BH020757	411133-334221	BH020788	233433-431121	BH020819	443433-421321
BH020727	311133-432421	BH020758	212233-434321	BH020789	112233-432421	BH020820	332133-434321



Interchangeable Core Cylinders

Covers all this...

- Best/Falcon/Arrow/Eagle/(A2)
- Best A3
- Best A4
- Corbin X Removable Core
- Corbin Z Removable Core
- Russwin Removable Core
- Emhart System 70 Removable Core
- Sargent Removable Core
- Schlage, Yale, Lockwood
- Medeco Removable Core

CLICK HERE TO LEARN MORE

#ICB - 1

128 • Visit www.TheNationalLocksmith.com

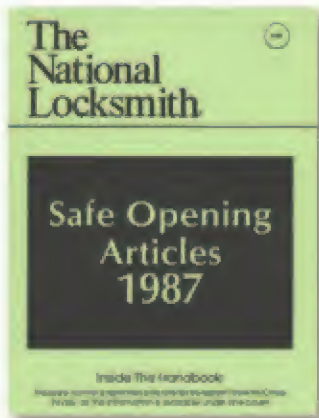
Click here to browse new issue

BMW Series

BMW BH010009-BH241009, Part 2

BH020821	212233-442421	BH020852	424333-413321	BH020883	332133-224421	BH020914	112433-432221
BH020822	413433-422121	BH020853	313133-442121	BH020884	242333-133421	BH020915	421133-243221
BH020823	334233-111221	BH020854	233433-121321	BH020885	412333-432221	BH020916	344233-132221
BH020824	342233-124321	BH020855	421133-134321	BH020886	342333-112321	BH020917	243133-112121
BH020825	213133-124321	BH020856	442333-122121	BH020887	431233-443421	BH020918	442333-112221
BH020826	432433-311321	BH020857	322433-131121	BH020888	111233-242421	BH020919	224233-213121
BH020827	312133-334421	BH020858	113133-443421	BH020889	422133-124321	BH020920	244433-231121
BH020828	211133-244221	BH020859	444333-212321	BH020890	221233-444421	BH020921	431133-444221
BH020829	413433-442321	BH020860	321233-243221	BH020891	113333-423221	BH020922	334333-412421
BH020830	343133-123421	BH020861	244233-124421	BH020892	411333-243321	BH020923	213233-434421
BH020831	132433-131221	BH020862	443433-121221	BH020893	342433-131121	BH020924	122133-344421
BH020832	133133-234421	BH020863	233133-244421	BH020894	124233-213221	BH020925	442133-132221
BH020833	443233-113321	BH020864	221133-344421	BH020895	344433-221121	BH020926	211233-343321
BH020834	313133-124221	BH020865	133433-121221	BH020896	332433-321321	BH020927	444233-211121
BH020835	112333-442421	BH020866	342433-431321	BH020897	231133-244421	BH020928	421233-343421
BH020836	431333-242321	BH020867	223433-421321	BH020898	431133-424421	BH020929	343133-244321
BH020837	324233-211221	BH020868	112333-421121	BH020899	321133-434321	BH020930	211133-242221
BH020838	132133-244421	BH020869	444333-134321	BH020900	212433-431221	BH020931	412433-443321
BH020839	321233-344221	BH020870	233433-321321	BH020901	124233-313321	BH020932	311233-442421
BH020840	313233-412321	BH020871	424333-311321	BH020902	331133-344421	BH020933	242133-334321
BH020841	224433-313221	BH020872	443433-311321	BH020903	113133-434221	BH020934	434333-312421
BH020842	121133-134421	BH020873	321133-343421	BH020904	121133-444421	BH020935	224333-413421
BH020843	342433-411221	BH020874	234433-213221	BH020905	412133-344221	BH020936	243433-421321
BH020844	213133-443121	BH020875	421133-443421	BH020906	331233-244421	BH020937	111333-443221
BH020845	112133-413221	BH020876	313433-444321	BH020907	243333-133421	BH020938	432433-231221
BH020846	311333-424221	BH020877	213333-423121	BH020908	413433-432221	BH020939	311233-243121
BH020847	124433-421121	BH020878	442433-321321	BH020909	311233-431221	BH020940	243233-122121
BH020848	222133-134221	BH020879	231133-442421	BH020910	134433-413121	BH020941	411233-424321
BH020849	433433-331221	BH020880	334433-121121	BH020911	331133-442321	BH020942	324333-112121
BH020850	324233-313121	BH020881	122433-421121	BH020912	433433-121121	BH020943	421133-442321
BH020851	223133-234421	BH020882	413433-321121	BH020913	232133-434421	BH020944	124333-113221

Safe Opening Articles 1987



CLICK HERE TO LEARN MORE



#SA - 1

NSO One Year Membership

To make big profits
in safe work...you
need information!



**Free when
you join NSO**

CLICK HERE TO LEARN MORE

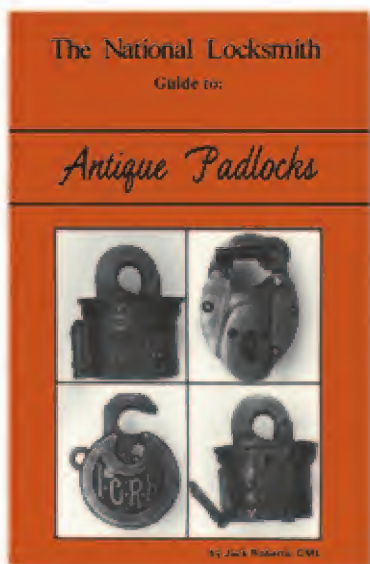


BMW Series

BMW BH010009-BH241009, Part 2

BH020945	331233-444221	BH020976	234233-211221	BH030008	311231-342123	BH030039	424331-211223
BH020946	212333-444321	BH020977	423433-431221	BH030009	212131-244323	BH030040	444331-213223
BH020947	131133-344221	BH020978	313333-443421	BH030010	413231-443223	BH030041	321331-243323
BH020948	443333-132421	BH020979	213433-421221	BH030011	312231-442123	BH030042	244331-124423
BH020949	342233-123421	BH020980	111133-324221	BH030012	211131-413223	BH030043	411231-431323
BH020950	124433-131321	BH020981	442433-121121	BH030013	134331-212323	BH030044	311231-421123
BH020951	334233-213121	BH020982	231133-234321	BH030014	324331-312123	BH030045	221131-334323
BH020952	312133-344321	BH020983	421133-234221	BH030015	112231-424323	BH030046	443131-244223
BH020953	223433-221121	BH020984	443133-234221	BH030016	112131-443123	BH030047	212131-433123
BH020954	424233-411321	BH020985	334233-211321	BH030017	431131-243323	BH030048	221131-434223
BH020955	312333-443321	BH020986	242333-132421	BH030018	324231-213223	BH030049	112231-422123
BH020956	213233-411321	BH020987	411233-434221	BH030019	243431-123423	BH030050	412431-221323
BH020957	132433-231121	BH020988	312333-421121	BH030020	412331-424323	BH030051	344331-121323
BH020958	323433-321121	BH020989	221233-343221	BH030021	342131-344423	BH030052	234331-111223
BH020959	113133-423221	BH020990	413133-334221	BH030022	113331-442323	BH030053	431231-342423
BH020960	112433-444321	BH020991	213433-431121	BH030023	324231-413323	BH030054	221331-443223
BH020961	433133-244421	BH020992	221333-442121	BH030024	344231-411223	BH030055	413331-434223
BH020962	323133-224421	BH020993	113433-421321	BH030025	213231-443423	BH030056	421331-443223
BH020963	244233-122421	BH020994	411233-242121	BH030026	112331-413223	BH030057	324331-411123
BH020964	413133-423321	BH020995	344233-124221	BH030027	443331-134423	BH030058	213131-424423
BH020965	312433-413121	BH020996	234433-121221	BH030028	343431-121323	BH030059	111131-342423
BH020966	113233-444221	BH020997	433133-344221	BH030029	224331-112223	BH030060	442431-123323
BH020967	323133-424221	BH020998	234333-411321	BH030030	343431-421223	BH030061	334331-111323
BH020968	344333-413121	BH020999	411333-443121	BH030031	242331-134423	BH030062	434231-413323
BH020969	224333-411221	BH030001	331131-442123	BH030032	221131-243223	BH030063	344331-132323
BH020970	113433-413221	BH030002	212431-442223	BH030033	421131-424323	BH030064	333131-224323
BH020971	444233-133221	BH030003	131131-334323	BH030034	313231-442423	BH030065	242431-133423
BH020972	343233-123321	BH030004	442231-134323	BH030035	211331-421123	BH030066	412431-432323
BH020973	223133-124421	BH030005	342131-121123	BH030036	131331-242323	BH030067	313331-421223
BH020974	413133-134221	BH030006	123431-121323	BH030037	444231-112123	BH030068	232431-311323
BH020975	243133-133221	BH030007	322131-244323	BH030038	234331-212423	BH030069	132131-134423

Antique Padlocks



Finally there is a book to give you all the information you need about old interesting locks.

[CLICK HERE TO LEARN MORE](#)

#PAD - 1

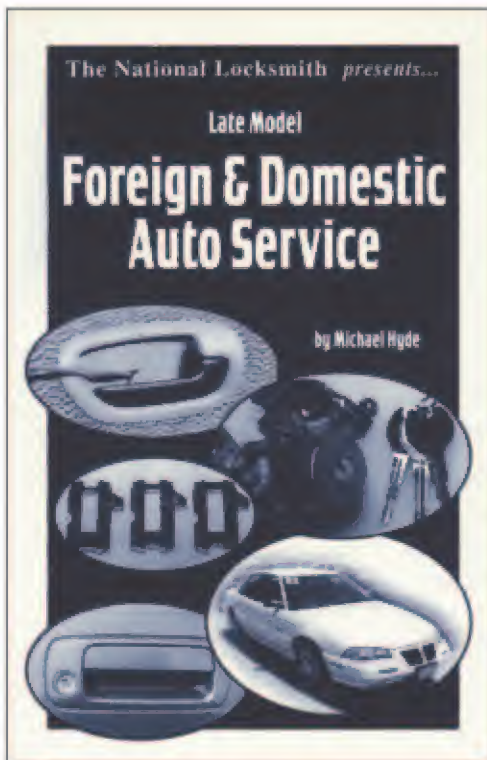
Picking & Impressioning



[CLICK HERE TO LEARN MORE](#)

#PI

Foreign & Domestic Auto Service



This book represents the best work of Automotive Locksmithing guru Michael Hyde, author of the famous AutoSmart.

CLICK HERE TO LEARN MORE



#FDAS - 1

BMW Series Part 2

BH030070	331231-243123	BH030138	134231-212223
BH030071	122131-344223	BH030139	442331-113323
BH030072	113231-424223	BH030140	244331-412423
BH030073	411331-244223	BH030141	113331-434223
BH030074	342131-132323	BH030142	312431-443423
BH030075	242331-111123	BH030143	234331-112123
BH030076	444331-312423	BH030144	243331-123123
BH030077	321331-344323	BH030145	412231-423123
BH030078	112231-431323	BH030146	344431-331323
BH030079	312131-434323	BH030147	211231-343123
BH030080	322131-434423	BH030148	113131-124223
BH030081	212231-432123	BH030149	331231-442223
BH030082	124431-313123	BH030150	244231-123123
BH030083	443431-123223	BH030151	442331-124323
BH030084	342231-111123	BH030152	443231-134223
BH030085	121131-434323	BH030153	343231-121323
BH030086	322131-444323	BH030154	224231-111223
BH030087	244431-113223	BH030155	434231-312423
BH030088	243231-134223	BH030156	311331-342223
BH030089	413131-433423	BH030157	213131-244423
BH030090	311131-432223	BH030158	444331-133123
BH030091	231231-342223	BH030159	234331-311223
BH030092	111331-243423	BH030160	213331-413223
BH030093	422131-134223	BH030161	131231-242223
BH030094	244231-133423	BH030162	444231-111223
BH030095	442331-134423	BH030163	324231-111123
BH030096	423131-234423	BH030164	112231-443223
BH030097	344331-131223	BH030165	431231-243423
BH030098	243331-111223	BH030166	213231-422123
BH030099	443131-334223	BH030167	444231-313323
BH030100	332131-334223	BH030168	413431-424223
BH030101	242431-211323	BH030169	313231-413423
BH030102	434231-211223	BH030170	223131-324423
BH030103	212131-412423	BH030171	123131-134223
BH030104	213131-433223	BH030172	344331-411323
BH030105	121331-343223	BH030173	213331-443323
BH030106	444331-124323	BH030174	412331-431123
BH030107	343431-111223	BH030175	342431-111123
BH030108	132431-411323	BH030176	343331-124423
BH030109	424331-312423	BH030177	232431-111323
BH030110	211331-443123	BH030178	431131-342123
BH030111	413331-421123	BH030179	324431-313123
BH030112	412231-442223	BH030180	221231-243123
BH030113	312131-433223	BH030181	423431-421123
BH030114	244231-313323	BH030182	344331-124223
BH030115	121131-234323	BH030183	111331-244323
BH030116	432431-131323	BH030184	112131-334423
BH030117	231231-442323	BH030185	442231-123323
BH030118	413131-442423	BH030186	332431-111223
BH030119	343231-122223	BH030187	113431-443123
BH030120	313431-221323	BH030188	444431-213123
BH030121	244331-112423	BH030189	321131-244423
BH030122	413331-412123	BH030190	113131-344423
BH030123	344331-312123	BH030191	331131-342223
BH030124	242131-244223	BH030192	312431-424323
BH030125	431231-444323	BH030193	223131-344223
BH030126	311331-243423	BH030194	131131-134323
BH030127	131231-243123	BH030195	413131-124323
BH030128	133131-324423	BH030196	222431-431123
BH030129	442431-133423	BH030197	112131-423123
BH030130	344331-113223	BH030198	313131-424323
BH030131	134431-431123	BH030199	134331-411223
BH030132	424431-331323		
BH030133	342431-231223		
BH030134	131331-344223		
BH030135	311131-422123		
BH030136	311331-444323		
BH030137	243131-344223		

TNL

L o r e x CCTV a n d y o u

by Tom Lynch

For a long time now, proponents of the new generation of security measures and devices have been prodding us along to react to the inevitable changes our industry will be facing in the future. The proliferation of proprietary keyways, high security cylinders and electronic locking systems has all come true! For those who made adjustments to these predictions and positioned themselves to address the changes necessary to survive, the future is their oyster. However, these advances are not just the fruit of our industry of locksmiths. The entire spectrum of security related companies are now offering everything from A to Z as a "bundled" package. Alarm dealers, Electricians, Carpenters and even door companies participate in every aspect of what we do. The fact is that we as locksmiths have come to the crossroads of redefining who and what we are as service providers.

It appears that the trend towards access controls and CCTV is still a burgeoning growth market. So why do so few locksmiths partake in it? The first response may be that you would like to, but you do not get CCTV calls. Maybe you need more information about CCTV's. Maybe you feel that you need to be an electrician. All points are valid, but the truth of the matter is, many have never really experienced the potential of such an opportunity because CCTV is intimidating to most.

CCTV systems or Observation Systems are an achievable benchmark for the locksmith. I will introduce you to an observation system that contains many features that you can learn and earn from quickly and easily. It is made by a company called LOREX. For the purpose of breaking out of the starting gate and learning the basics of CCTV without being overwhelmed by the technical fluff that is often accompanied with the "trade only" products, this is a winner.

The Lorex system I will cover is the Model SG7864S. It is a "bundled"

package with a 17" B&W monitor with built in Quad and 4 cameras and cables all in one box ready to go.

This is a system that you can sell and install.

The Monitor

The Model SG7864S monitor is an attractive 17" black and white display with 800 lines of horizontal resolution. (See photograph 1.) Its purpose is to show you what the camera sees. That's it. So it is a receiver of visual information. This specific monitor has a built in "quad" and "auto switching" feature. The "quad" enables you to view up to four camera pictures simultaneously in real time (30 FPS) on one screen. (See photograph 2.)

The advantage to a quad over a single screen picture is that you can observe a variety of targets at once. The drawback is that the picture size is reduced in size to one-fourth of the screen size and "what you see is what you get" when recording. In other words, if you are viewing and recording in quad mode, then that's exactly what you will be seeing when you play back your taped events. Too often people are led to believe that they can choose which camera view to review after recording and that is not the case with a quad. There is a way to do such a thing, but that's another article!

If your customer were to view a "full" screen of one of the cameras in the quad, then only that view would be recorded. The other three cameras would not be recorded at all. This is very important to understand. Your presentation to your customer must consider these functions. It may allow you to up-sell.

The "auto switching" function allows you to scroll through your camera views, one after another in sequence. Camera switching time is 1 to 60 seconds. It's just like viewing pictures in a photo album page after page. But like the quad mode, you will have moments of lost video during the



1



2



3



4

1. The Model SG7864S monitor.

2. This monitor has a built in "quad" and "auto switching."

3. The monitor controls.

4. Display controls for contrast, vertical hold, and brightness.



5



6



7



8

5. The motion sensor or alarm button.

6. On the rear of the monitor is all the camera input jacks.

7. Equipped to accept both the supplied "Din" style connectors or "BNC" style.

8. Alarm function inputs.

picture rotation.

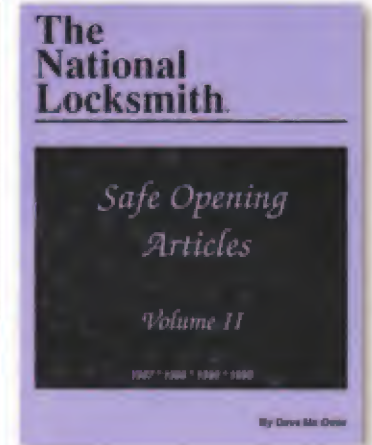
The monitor controls and operating functions are located along the front of the unit. With a "menu" button clearly marked. (See photograph 3.) When depressed this menu button will allow you to quickly program "dwell time" (the speed at which the cameras will scan), camera sequence, title set, and time/date. To move around the menu options, you use the up/down and left/right arrow buttons. Under the front cover of the monitor is the display controls for contrast, vertical hold, brightness, etc. (See photograph 4.)

You will also find the VCR on/off button along with a volume control for the "two way" communications this unit delivers and the "motion" sensor or "alarm" button. (See photograph 5.) You heard it right! There is two way voice capabilities that is crystal clear and motion sensing capabilities for a visual and audible notification. When the alarm function is used, the monitor will automatically switch to full screen display where motion/movement is detected. The user will be alerted to the motion being detected for 1-90 seconds. At the end of this time, the monitor will automatically switch back to the previous mode it was set. Should additional triggers be received during this period, the system will automatically switch to the relevant cameras and continue the warning sound.

This is a great feature for monitoring a location where review of hours of video tape could be counter-productive when searching for activity. In this mode, all you need to do is run the taped video in fast forward mode while stopping only at the full screen portions of the tape. It will save you a lot of time finding information. It is also a wonderful way to actually track the movement of any activity.

This Lorex system was installed in a day care facility. With the aid of the motion sensor and audible alarm, the staff was able to react to movement of children while they were sleeping. It enabled the staff to leave the rooms and respond if a child was to arise. The two-way voice was helpful in dealing with the administrative needs of the office as well as the concerns of day care staff who wanted to communicate with their superiors without leaving the children unattended. Pretty good, but there's more! Kind of like a late night infomercial, the value never ends!

Safe Opening Articles



Dave McOmie's original articles from when he first started writing for The National Locksmith are reprinted in this book.

[CLICK HERE TO LEARN MORE](#)



#SA - 2

August 2000 • 135

On the rear of the monitor is all the camera input jacks, audio, video inputs/outputs, etc. (See photograph 6.) When I say all the camera input jacks, I mean it! The Lorex unit is equipped to accept both the supplied "Din" style connectors or "BNC" style. (See photograph 7.) This is a very convenient add on that enables you to mix cameras from other manufacturers if needed. There is also "Alarm function inputs." (See photograph 8.) Here you can opt to tie in an alarm triggering device like door contacts. There are also "looping" outputs that can be used to display specific cameras on a separate monitor.

Cameras

The Lorex system comes supplied with 4 B&W cameras, with 1/3" CCD image sensor 542 H x 505 V picture elements. (See photograph 9.) The lens is 4.3 mm F2.0 with a minimum light illuminance of 0.1 Lux. Picture angle is 74 degrees horizontal, 55 degrees vertical. The cameras are equipped with a motion sensor with a range of 18 feet, and 90 degrees horizontal, 80 degrees vertical. Well that's a whole lot of nothing if you are new to the CCTV world, so I will try to water it down for you to understand.

These cameras have a motion sensor that will read the areas by the stated "degrees" and will also operate in very low light conditions, due to the 4 "IR" (Infrared L.E.D.) built into the them. It comes with a standard size lens and it delivers a good picture. Each camera comes with a pedestal and should be installed away from direct sunlight, high humidity or extreme heat. (See photograph 10.)

Four 65-foot lengths of cable are supplied in the Lorex SG7864S for each camera. It is a "Din" connector style and can simply be extended with the use of a coupler. (See photograph 11.) All power, video and audio signals travel through this cable, allowing you to complete a fast installation by simply plugging and playing.

Programming

Anyone can program this unit. All programming is done via the "Menu" button located on the front of the monitor. The menu will display the following. (See photograph 12.)

1. Title Set
2. Sequence
3. Scan Dwell Time
4. Alarm Reset Time

5. Time/Date
6. Exit

To navigate these options, you only need to use the up/down arrows and the left/right arrow buttons located on the front of the monitor.

Title Set is another word for camera identification or the name of the location being viewed. Selecting the appropriate letters/numbers is similar to setting your alarm clock. Once completed you only need to press "menu" again to proceed. A total of 8 characters are available.

Sequence is used in the "auto" mode to automatically rotate between the four cameras. The camera has a default setting of 1-2-3-4. You may choose to change the rotation pattern, but it is easier to just plug in the appropriate cable to the correct jack. To change it, just press the "menu" button and follow the same procedures mentioned before. (See photograph 13.)

Scan Dwell Time is another feature used in the "auto" mode. Its setting is defaulted to 5 seconds, but can be adjusted to 1-60 seconds. To adjust use the same process as before.

Alarm Reset Time is defaulted at 5 seconds, but can also be changed from 1-90 seconds. When the alarm mode is used the letter "A" will appear at the top left corner of the monitor screen. When an alarm is activated the letters "AL" will appear in the upper right corner, while the camera location of where the alarm has taken place will appear in the upper left corner. (See photograph 14.)

Time/Date is the same as everyday program functions of household appliances, watches and car stereos, so don't get intimidated. You cannot make a mistake that can't be corrected.

Accessories

The following accessories can be used with your existing system to enhance its performance.

- SG6577 Additional 65' cable with coupler
- SG6879 Door/Window contact and a 30 ft cable
- SG6878 PIR Motion Sensor and a 30' cable
- SG7810 8 Hour Event Recorder
- SG7820 Time Lapse Recorder
- SG6876S PIR Sensor Camera

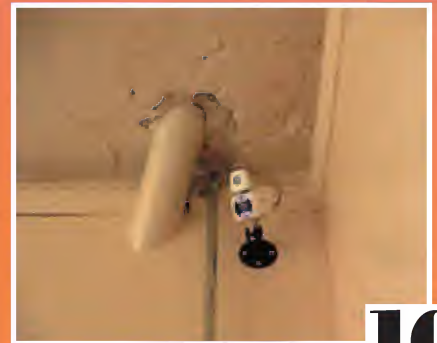
The overall cost of this system will allow you to make a handsome profit,



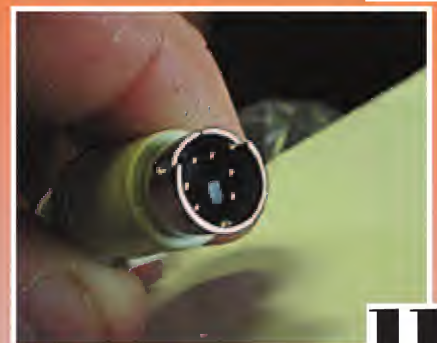
9a



9b



10



11

9. The system comes supplied with four B&W cameras.

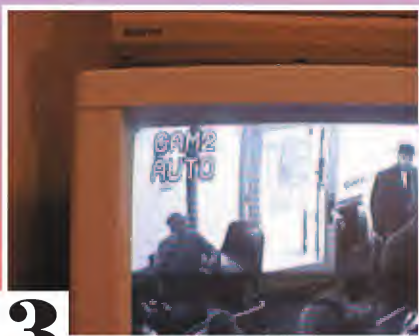
10. Cameras come with mounting brackets.

11. Four 65-foot lengths of cable are supplied.

12



13



14



12. All programming is done via the "Menu" button.

13. Camera auto scanning.

14. When an alarm is activated the letters "AL" will appear in the upper right corner.

but remember not to drive down your price due to its simplicity. A typical installation of four cameras in a location with an easy wire run could take two hours or less. The Lorex CCTV system is very easy to install and profitable as well.

For more information on the Lorex system contact Maziuk Wholesale Distributors at: 1251 Genesee St., Syracuse, N.Y. 13204; Phone: (888) 605-8311; Web: MZKWORLD.COM. Circle number 322. **TNL**

Safe Opening Volumes 1-5



These are the classic safe books you will need to open most any safe easily and professionally.

- Volume 1 - Modern Safes
- Volume 2 - Modern Safes
- Volume 3 - Antique Safes
- Volume 4 - Antique Safes
- Volume 5 - Very Recent Safes

CLICK HERE TO LEARN MORE



#SO - 1, SO - 2, SO - 3, SO - 4, SO - 5

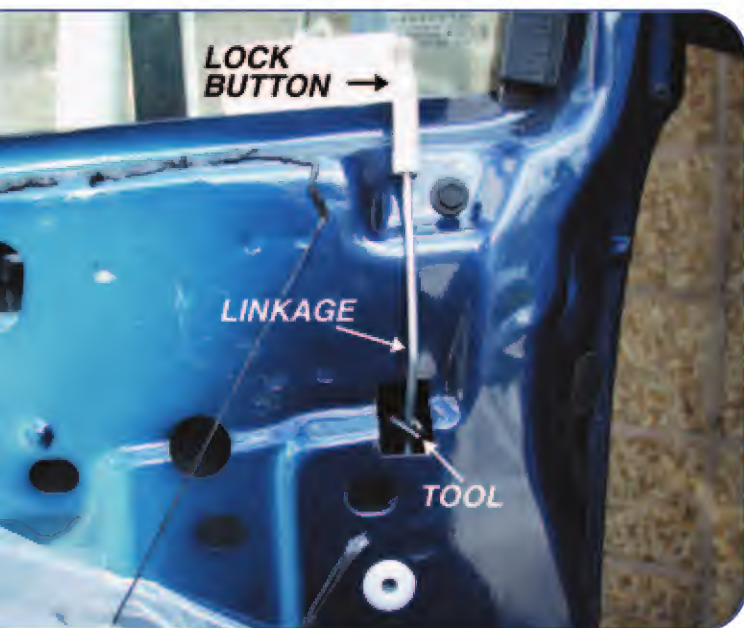
The Chrysler PT Cruiser

Year after year, auto show attendees are wooed by what the industry calls “concept vehicles.” These flashy, futuristic designs are usually years ahead of the technology of current model year vehicles, and are placed for all to see on rotating platforms. Unfortunately for the public, these concept cars annually make the news, but never seem to make it out of the assembly plant where we can actually drive them.

Continued on page 142



by Nelson Rivera

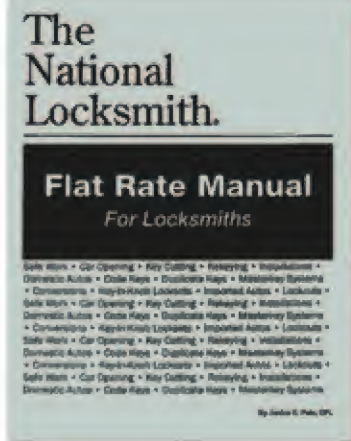


1. The inner doorframe protects the upper portion of the linkage.



2. Insert a strip saver and wedge into the passenger door.

Flat Rate Manual



Now you can easily
“Price for Profit!”

CLICK HERE TO LEARN MORE



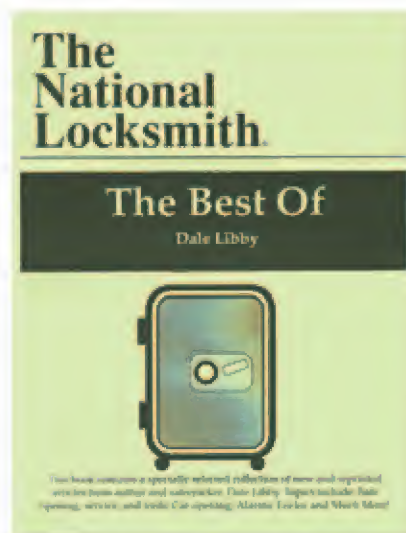
#FRM - 1



3. Twist the tool handle out to hook the lock rod.

One manufacturer, however, has for the last several years actually brought several of its concept vehicles off the drawing board and onto the roads. That company is the Chrysler Corporation. The one time underdog is now an industry leader and it's partly due to the completion of these concept cars. Some of the concept vehicles brought to market by Chrysler include the Viper and the Prowler.

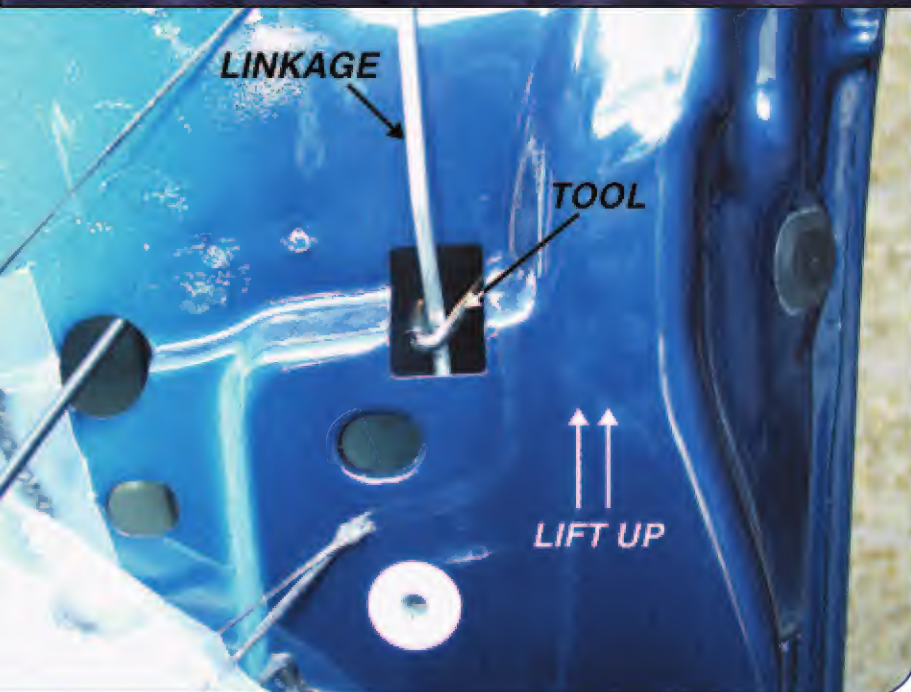
The Best of Dale Libby



CLICK HERE TO LEARN MORE



#DALE



4. Simply lift the tool to unlock.

For 2000, Chrysler has done it again by introducing the new and wildly popular PT Cruiser. Not unlike the Prowler, the PT Cruiser is a retro-vehicle, making it look like something that came out of a Happy Days meets the X-Files TV special. This vehicle is small, but roomy on the inside and is relatively inexpensive. With its head turning design, you will no doubt run into one of these beauties real soon.

The PT Cruiser employs a standard vertical door lock button for a lock system. However, much to the dismay of many locksmiths, without the proper information, this easy to open vehicle can not be opened with a standard "under the button" tool.

As the name suggests, under the button tools open many vertical lock buttons by coming from underneath the button and pushing the lock button up to the open position. While the linkage itself in the PT Cruiser is not very well shielded, the inner doorframe does protect the upper portion of the linkage and the lock button itself, making this method unusable. (See photograph 1.)

On the other hand, using a tool like the High Tech Tools number 47 'S' tool, makes hooking the linkage itself quick and easy.

To begin, insert a strip saver and wedge into the passenger side door to create working room for the tool. (See photograph 2.) Next, lower the 'S' tool into the door just beneath the door handle. Once in the proper position, twist the tool handle out to hook the door lock rod from the opening in the doorframe. (See photograph 3.) Once hooked, simply lift the tool to unlock the door. (See photograph 4.)

Before you know it, your customer is back on the road while you are back to opening more.

For more information about High Tech Tools call: 800-323-8324; Web: www.HighTechTools.com, or circle 280 on Rapid Reply. **TNL**



Guide to Motorcycles

For years locksmith have begged for a comprehensive service manual on motorcycles and its finally here!

CLICK HERE TO LEARN MORE



#MOT - 2



1. A Meilink fire safe.



2. the handle cam shear rivet had severed.



MEILINK FIRE SAFE

by Ray Hearn

One of the skills that makes a safe technician successful is one that is easily overlooked; the power of observation. I don't propose we all become Sherlock Holmes, but a lot of information can be gained from observation, touch, feel, and a careful study of the safe.

I was called to open a Meilink fire safe that was easy to diagnose even over the phone. (See photograph 1.) The dial came to a stop when dialed, but the handle just rotated freely. That indicated that the handle cam shear rivet had severed, which disconnects the handle from the boltwork. (See photograph 2.) This rivet is a popular way to protect a safe against being opened by having the handle forced. At a certain pressure point the rivet fails, disconnecting the handle from the boltwork.

I came in prepared to place the customary 1/8" to 1/4" hole through the top of the safe 3-3/8" from the side of the safe body. (See photograph 3.) I would then measure 2" back from the front edge of the body on the opening side of the safe. (See photograph 4.) A small hole here will go in about



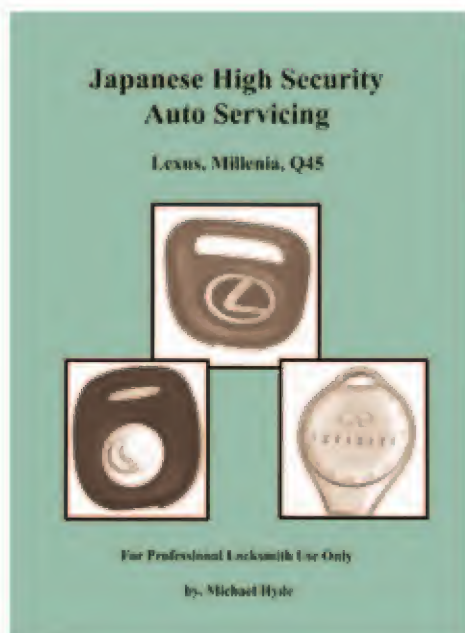
3. I came in prepared to drill through the top of the safe.



4. I would then
measure 2" back from
the front edge.



5. Contact the
top of the bolt
cup.



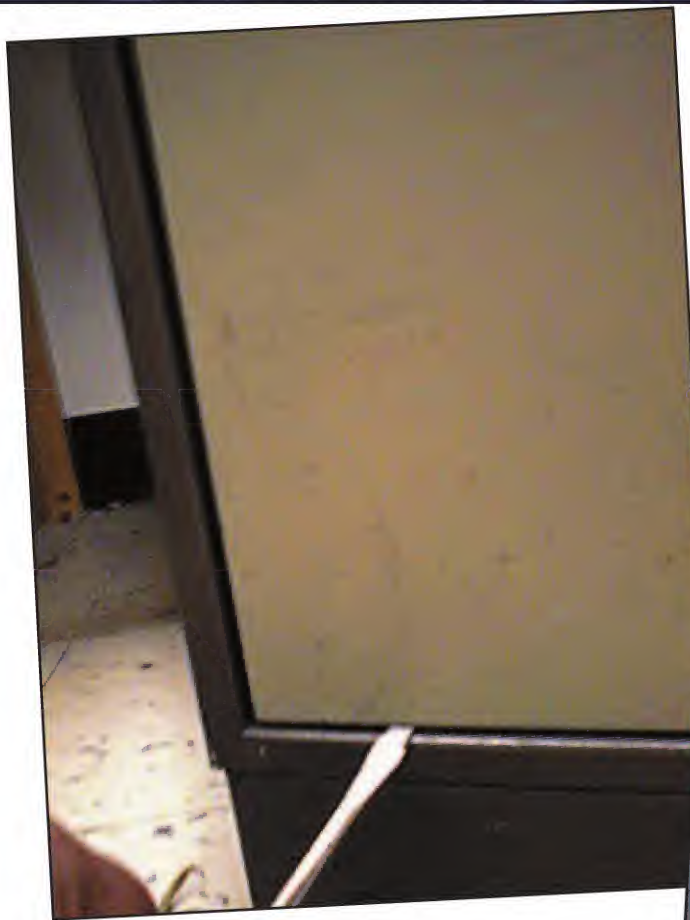
Japanese High Security

Some of the most profitable cars are also
the trickiest to work on.

[CLICK HERE TO LEARN MORE](#)



#JAP - 1



6. A small screwdriver to lift the door.



7. The door swung open.

1-5/8" and contact the top of the bolt cup. (See photograph 5.) Once you drill through the bolt cup it takes little pressure applied against the top bolt to cause the bolts to retract and the door will open.

Back to the power of observation. On this safe, I noticed that the handle had some resistance to it and that the door was sagging. I used a small screwdriver to lift the door slightly. (See photograph 6.) As soon as the pressure was relieved against the side of the bolts, the broken rivet still had enough bite to swing the bolts to open. (See photograph 7.) There was no hole to drill or patch.

With the safe now open, I only had to replace the shear plate rivet. I tapped the hole 10-32 after I knocked the remains of the old rivet out of place. A short 1/2" long screw and a drop of liquid fastener finished the job.

Since the hard to lock door seemed to be part of the cause of the broken handle, I put a few .020" arbor spacers on each hinge pin to make the door lock with less force to the handle.

Observance saved me a drill job, repairs and a lot of time. **TNL**

AutoEdge

This CD contains over 750 pages of automotive locksmith service.

[CLICK HERE TO LEARN MORE](#)

#AE - CD



TheNationalLocksmith.com

Technical forums, chat, online store, plus
visit our sponsors...

1-800-UNLOCKS



<http://www.1-800-UNLOCKS.com/>

A&B Safe Corporation



<http://www.a-bsafecorp.com/>

Abloy® DiskLock Pro



info@abloy.ca

Adesco Safe Manufacturing Co.



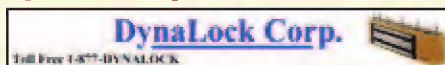
<http://www.adesco.com>

DiMark International



<http://www.pronet.net/dimark>

Dynalock Corp.



<http://www.dynalock.com>

HPC, Inc.



<http://www.hpcworld.com>

International Locking Devices, Ltd.



<http://www.gatelock.com>

KustomKey



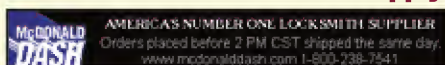
<http://www.kustomkey.com>

MAG Security



<http://www.magsecurity.com>

McDonald DASH Locksmith Supply



<http://www.mcdonaldldash.com>

WEB REVIEW

Omaha Wholesale Hardware

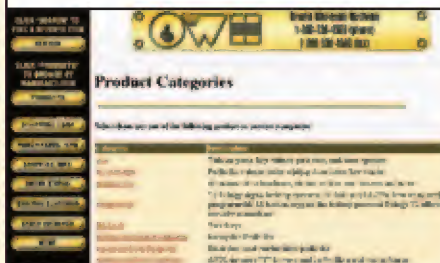
<http://www.omahawh.com/aloa/default.htm>



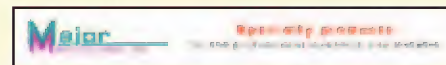
Omaha Wholesale Hardware has put together a really nice site to quickly browse and shop online. Although they show a great number of items online, they have divided their offerings by manufacturer to allow for rapidly finding what you need.

Moreover, search functions are quick and efficient. In fact, we were impressed with how quickly this site loads, and then locates what you want. OWH concentrates online on locksmith specials where you can find sale merchandise fast. Also impressive is the fact that you can order online as well.

Whether you prefer to search by manufacturer or product category, results are returned very quickly. You get to see an illustration of many products, full descriptions, see the online price, and make an immediate purchase if you wish.

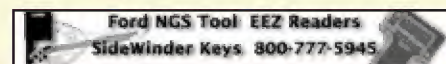


Major Manufacturing



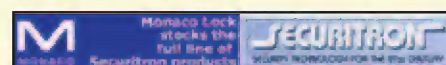
<http://www.majormfg.com>

Maziuk Wholesale Distributors



<http://www.mzkworld.com>

Monaco Lock



<http://www.monacolock.com>

National Auto Lock Service, Inc.



<http://www.laserkey.com>

RA Lock Co.



<http://www.rlindustries.com>

ROFU International Corp.



<http://www.rofu.com>

Security Resources, Inc.



<http://www.techtrainproductions.com>

ShatterGard Security Window Film



<http://www.shattergard.com>

Sieeking Products Co.



<http://www.sieekingprodco.com>

Wadsworth-White Wholesale



<http://www.wadsworthwhite.com>

Manufacturers and distributors... join the high profile locksmith web site and you'll be featured here!
Call Jeff Adair (ext. 15) or Debbie Schertzing (ext. 16) for details. (630) 837-2044

August 2000 • 151

**Taking
Industry Products
for a**

**TEST
DRIVE!**

With the plethora of parts and pinning kits currently needed to service most vehicles these days, it's becoming harder and harder to keep abreast of it all. To be a complete automotive service technician in the 21st century, the dedication of almost an entire service vehicle is needed just to stock all the necessary parts. Heck, you need a keyboard a block long just for key blanks alone. That's a far cry from yesteryear when just one devoted cabinet would contain all your automotive needs.

PRODUCT: Lockcraft, a division of Dana Engine Controls (formerly known as BWD, formerly known as All Lock) is offering what it calls "Premium Pack Lock Kits". It eliminates the need to stock specialty pinning kits for every variety of lock in existence.

COMPONENTS: Each Premium Pack contains a complete disassembled ignition lock. This includes the lock, lock components, tumblers, tumbler springs and tumbler caps. With a customer's existing key, Premium Pack Lock Kits allows the service technician the ability to code the lock to the customer's key and install. This eliminates the need for a specific pinning kit, and you are assured that all the parts needed to complete the job will be there.

When was the last time you found yourself in the middle of a job only to discover that you were out of facecaps, or number 3 tumblers, or spring retainers? Yes, there is nothing more frustrating. With Premium Pack Lock Kits, all your worries are eliminated. Every necessary lock component is conveniently packaged in a single pack.

152 • The National Locksmith

Lockcraft Premium Pack Lock Kits

by Dana Engine Controls



PRICE:
Currently, Lockcraft Premium Pack Lock Kits are available for:

Ford 10-Cut

1995-'97 Contour/Mystique	\$21.26
1985-'89 Taurus/Sable	\$15.45
LC1413LK.....1984-'97 Ford	\$15.45
LC1414LK.....1984-'97 Ford	\$15.45
LC1415LK.....1984-'97 Ford	\$18.00
LC1416LK.....1984-'97 Ford	\$15.48
LC1417LK.....1984-'97 Ford	\$15.93
LC1418LK.....1984-'97 Ford	\$15.45
LC1438LK.....1984-'97 Ford	\$15.14
LC1439LK.....1984-'97 Ford	\$15.62

Ford 8-Cut

LC6177LK Ford 8-Cut, Fits all 1996 - 2000 Taurus, Sable, Explorer, Expedition, Excursion, Grand Marquis, Town Car, Continental, E-F Series 150/250/350 Trucks and Vans, Ranger and Mustang.

Import/Foreign


LC1349LK	Toyota	\$14.25
LC1390LK	Toyota	\$13.43
LC1487LK	Toyota	\$13.65
LC1357LK	Honda	\$11.48
LC1358LK	Honda	\$14.70
LC1495LK	Honda	\$11.18
LC6176LK	Honda	\$12.92
LC1486LK	Honda	\$11.35
LC1489LK	Mazda	\$10.98

For just a few dollars more than an assembled ignition lock, Premium Pack Lock Kits offer

greater flexibility while eliminating the possibility of part shortages. It also eliminates the need to purchase a rather expensive pinning kit for those less requested models that is collecting more dust than you would like.

When ordering the Premium Pack Lock Kits, simply add LK (Lock Kit) to the standard part number. For example, if you needed to order a Honda LC1486 lock and wanted it in a Premium Pack, the part number would be LC1486LK.

CONCLUSION: The Lockcraft Premium Pack Lock Kits are a great idea. It sure is nice to have all the components needed in one package. I can think of several occasions in the past when I wish I had just such a product.

For more information contact:
Dana Engine Controls
1108 Singleton Dr.
Selma, AL 36703
Phone: (334) 872-6525 ex. 11
Fax: (334) 874-4926
E-mail: tssalesbwd@aol.com
Circle 323 on Rapid Reply. 

IN SUMMARY:

DESCRIPTION: A complete disassembled ignition lock, packaged with all components.

PRICE: \$10.98-\$21.26 depending on lock.

COMMENTS: Eliminates the need for a specific pinning kit.

TEST DRIVE RESULTS: It sure is nice to have all the components needed in one package.